

UNITED STATES DEPARTMENT OF THE INTERIOR

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SAFETY EDUCATION

Helps for Schools in Constructing
a Course of Study

BY

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[The title-page was especially designed for this bulletin by Elsie Ruth Jackson and Thomas DeVerter, students, Chicago Academy of Fine Arts.]

Letter of Transmittal

DEPARTMENT OF THE INTERIOR,

OFFICE OF EDUCATION,

Washington, D. C., May 1, 1932.

SIR: Making courses of study requires much of the time and energy of responsible school officers in cities and counties and in some of the State departments of education. In a changing world with an experimental attitude characterizing educators, this is inevitable. It is, in my judgment, undesirable that any attempt should be made to save time and energy for these superintendents by doing this work for the country at large in a central office. Under present conditions it would be utterly impossible for the Federal Office of Education to compile such materials or to issue bulletins in sufficient number to reach all the teachers concerned.

There does seem, however, to be a distinct service which should be rendered by some one. It consists in reviewing the efforts which have been made in curriculum revision, in setting forth the educational objectives presented in these courses of study, and in presenting the typical organizations by which they were made. I believe that a series of guidebooks to the making of courses of study might be helpful. Such a guidebook would offer a superintendent in condensed form a manual of procedures. It would assist him in setting up the organization most likely to develop a course of study suited to his peculiar needs.

The attached manuscript represents an effort to render this kind of service for those who desire to develop a course of study in safety education. I am very anxious to have it issued as a bulletin of this office to ascertain, first, just what the need is for this kind of service, and second, to obtain suggestions from school superintendents that will enable us to prepare bulletins to meet it in the fullest possible way.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

SAFETY EDUCATION

Helps for Schools in Constructing a Course of Study

Introduction

The Department of Commerce in its highway safety conference made this pronouncement: "The problem of safety is closely linked with health, thrift, and many other elements which taken together make up the great problem of developing a finer citizenship. Educational leaders of the country are now endeavoring to weld together the essential elements of a more fundamental and far-reaching course in citizenship for the public schools than any that exist at the present time."

In accordance with this idea the plan of this bulletin has been carried out. It offers a constructive program for the use of superintendents who desire to formulate a course of study in safety that shall create in the child's mind, not a sense of fear and dread, but an attitude of prudence and caution toward the hazards that he meets in his daily life, together with an appreciation of the safeguards with which a friendly neighborhood attempts to insure his safety and welfare.

Dr. Albert W. Whitney, writing in the Safety Education Magazine, for March, 1929, says:

While for the population as a whole the number of accidental deaths is going steadily upward each year, there has been substantial decrease in child fatalities, and this in the face of an increase in population and a very great increase in the number of automobiles. In fact it may be said that the younger generation is leading the way in the safety movement. The conviction of many that in the education

of children lies the greatest possibility for solving the national accident problem seems to be borne out by these facts.

Children to-day are taking safety for granted. Educators found four or five years ago that it was practically impossible to make the high-school student feel he had any responsibility for his own safety, to say nothing of the safety of others. To-day our young people enter the high school with an entirely changed attitude. They take an intelligent interest in safety problems; they see the movement as constructive and purposeful, not as something which is everlastingly hindering the fun and freedom of the individual.

I. The Organization of Committees, and Their Work

Several plans for organizing a curriculum-making group have been suggested by different authorities and many of these have been used in different school systems during their period of curriculum making. The composition of the group will depend largely on local conditions and the subject or subjects selected for study, but generally speaking the procedure will be the same in each instance.¹

It is essential to the success of the undertaking that the group should be well organized, that committees be carefully selected and that the responsibilities of each be clearly defined. Harap suggests the following personnel for the make-up of a curriculum-making group which applies equally well to the selection of a special group for the study of safety education.

The curriculum committee should consist of the most capable and most industrious persons who can do the job.

It should include persons who have the authority to call upon many teachers for assistance at any step of the process of revision.

The chairman of the group should have some knowledge of the technique of curriculum making.

It should include the person who will be responsible for training teachers to carry on the new course of study.

It should include classroom teachers who will think in terms of actual conditions and who will help to design new teaching units.

It should include principals and other supervisory officers who represent the administrative point of view.²

¹ Charters, W. W. Curriculum Construction, 1923, New York, Macmillan Co.

² Harap, Henry. The Technique of Curriculum-Making, 1928. New York, Macmillan Co.

Four different methods of selecting teachers to serve on the curriculum-making committee as followed by Pueblo, Colo., Millville, N. J., Lawrence, Kans., and Long Beach, Calif., are outlined in the Fourth Yearbook of the Department of Superintendence.²

First, nominations are made by local teachers' associations with superintendent's approval; second, elementary principals make selections subject to superintendent's approval; third, the superintendent's office selects outstanding teachers; and fourth, teachers are selected who desire university credit afforded in curriculum courses.

The group might well include three committees with responsibilities outlined somewhat as follows:

The central committee in charge.—This committee is composed of a chairman, whose work on the committee is a major duty and who is more or less familiar with the technique of curriculum-making. Other members of this committee are certain principals and supervisors, especially the supervisor of safety or some one appointed to direct the work.

The duties of the central committee are to supervise the work of the group and to pass on and coordinate the material prepared by the other committees.

The committee on materials of instruction.—Since safety is a subject which is taught largely through correlation with other subjects, as well as through direct teaching, every teacher on the staff, both special and grade, is vitally interested in the writing of such a course of study and should participate more or less in its preparation. These teachers may become members of a classroom materials committee composed of the director of safety teaching, as chairman, and of teachers of all the other subjects. It will be responsible for the units of study that are included in the curriculum and the methods, devices, and activities which are recommended for use in teaching them.

The committee of research.—A third committee, one of research, will be necessary to aid and assist the classroom

² National Education Association, Department of Superintendence, Fourth Yearbook, 1926.

teachers in preparing their data on materials of instruction. Especially is this true in a safety course of study where an intimate knowledge of the school environment is needed. This committee will render efficient service by collecting reports from the National Safety Council, the Manual of Industrial Safety, Bureau of Labor Statistics, Report of Bureau of Safety in the Interstate Commerce Commission, the American Medical Association, the National Fire Protection Association, and many others of like nature. The findings of expert commissions in the city or town where the course of study will be used are also valuable aids in determining the needs of the local community. Among these will be the city's Bureau of Public Safety reports, data secured from the records in the public schools, statistical studies of the city's accidents, police reports and pupil questionnaires, and neighborhood surveys conducted in the vicinity of the school.

In addition these major committees need assistance from a clerical staff and from the research department, if such department exists. If not the teachers' records of children's handicaps may be used to advantage in determining safety objectives.

Some of the preliminary steps which superintendents have found helpful in initiating a curriculum-construction program are:

Preliminary surveys of accident hazards to pupils in the school neighborhood to reveal the need for a safety curriculum.

Discussion by the teachers' administrative council, an organization made up of representatives from each of the school buildings, of the advisability of studying the safety curriculum problem.

Preliminary meeting of the whole teaching force for explanation of the project by the superintendent of schools or the specialist who is to act as adviser.

Organization of a teachers' council, composed of a teacher from each grade and school building in the local system, to work on materials of instruction in a safety curriculum under the superintendent of schools.

Conducting of local extension courses in safety curriculum construction under the leadership of faculty members of a local State teachers college or university. In some systems all teachers interested are enrolled in these classes; in others, special groups are enrolled such as the supervising principals. In one city 60 selected teachers were enrolled; in another, all members of the course of study committee. In most cases teachers secure university credit for these courses. One city laid the foundation for a course of curriculum construction a year in advance through departmental meetings.

Appointment by the superintendent of schools of committees of teachers to work on a safety course of study under the general direction of their respective supervisory heads.

Review of daily attendance records and causes of absence which have been kept over a period of years by local teachers, as a background on which to build a safety course of study.

Check of local school practice in safety education against curriculum ideals.

The following outlines show the composition of the Baltimore, Md., safety curriculum-making groups and the work of the curriculum-making committee.

1. Composition of the Baltimore, Md., safety curriculum-making group:

- (a) Superintendent and assistant superintendents (superintendent of public instruction who is chairman of the child activities committee of the Baltimore Safety Council).
- (b) Consulting experts in subject matter, methods, and philosophy (educational staff of the Johns Hopkins University).
- (c) Chairman (supervisor, whose functional assignment has been safety education).
- (d) Supervisors and principals (supervisors and principals who are members of the child activities committee of the Baltimore Safety Council).
- (e) Bureau of Research (the Baltimore Bureau of Research).
- (f) Classroom teachers (classroom teachers now preparing and teaching units of safety).
- (g) Specialized groups in the community (Baltimore Safety Council and National Safety Council).

2. Work of the curriculum-making group:

- (a) Formulation of specific philosophy of education.
- (b) Analysis of objectives.
- (c) Examination of instructional materials.
- (d) Try-out of objectives and tentative units in various schools.
- (e) Revision of tentative set-up of course of study.

II. Determining Objectives in Safety Education

To safeguard the pupil against his own ignorance and carelessness and to train him to avoid or overcome the hazards he encounters in his school and social activities are the primary purposes in formulating and administering a course of study in safety. General and specific objectives should be formulated which are determined by an analysis of the child's activities during the routine of his daily life, in his home and school, in his work and play, as he walks and rides through the city streets or along the country highway. In all his various activities he must be trained to see and to do the safest thing in the safest way.

The school playground is a case in point. Many serious accidents occur during pupil activities at recess and before and after school. Zoning and patrol of the grounds with supervision of games and sports are the safeguards that are instituted by the school authorities to insure the child's safety. To make him conscious of the possibilities of accident and injury on the playground and to train him to avoid them constitute the major safety objectives in connection with the child's play and recreation. Specific objectives for these activities concern the possibilities of accident and injury in connection with the playing of certain games and the use of different types of apparatus.

Units of study must also be developed from these activities which may become the safety programs given in the classroom to fortify the child against the dangers he may encounter and to train him to avoid them.

By analyzing the child's activities the objectives of a safety course of study are determined. These activities naturally fall under the following heads: Activities in connection with (1) the home, (2) the street, (3) recreation,

(4) health habits, (5) the prevention of fire, (6) civic safeguards, (7) industrial occupations, and (8) safety in transportation.

Surveys.—One of the first steps in the analysis of these activities in order to determine safety objectives is a series of surveys to be made of the school and social environment of the child and of his reaction to the rules and regulations laid down for his protection. These surveys may be made by the curriculum committee, by members of the school board, by teachers and supervisors, or by the children themselves.

No general course of study in safety will meet the needs of individual schools. In this subject the questions of location and environment play a large part. A safety program is essentially a neighborhood program. For this reason a study of the school district is necessary before actual work on the course of study can begin. Do frequency of street accidents to pupils have any relation to the location of the school building? What play space is available for school children in the district? Is it adequate so that the children do not need to play in the street? What is the character of the neighborhood in which the school is located? Is it an industrial, mining, or residential community? What nationalities predominate in the neighborhood?

To ascertain the kind of neighborhood in which the school is placed, access may be had to data already prepared by numerous municipal authorities, as stated on page 18, and also to economic and industrial surveys which have been made. In these surveys statistical reports are given and spot maps prepared that furnish necessary information for the survey committee in regard to the character of the community.

A mining community presents characteristic types of hazards which should be stressed in safety courses of study. Boys frequently enter the mines to help support the family at home or to acquire a certain degree of financial independence as soon as school authorities will permit. The school curriculum in this locality should prepare these children to some extent for the hazards they are to meet.

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In a high middle-class residential section with the professional parent predominating and a cultural home background for each pupil the hazards are again of such a different character that a special course of study in safety is required. Delicate children, carefully reared, are perhaps more defenseless in the face of danger than are children thrown more often on their own resources. A careful survey of the hazards they encounter should make up the major part of a course of study in safety for this community.

In a neighborhood of foreign parents some of the home traditions, many of the habits and especially the language used at home are so different that a special adjustment must be made to meet the child's inability to understand and interpret the admonitions which he sees and hears in regard to safety. This adjustment is a matter of method rather than content and must be met by the teacher of the foreign born.

Most of the neighborhood data required for the city survey will be needed in preparing courses of study in safety for rural schools. In country neighborhoods the danger to health on account of impure milk and water is obvious. Without adequate sewage disposal and proper drainage away from the well that supplies the drinking water used by the family, the farmer is sometimes powerless to prevent contamination of his water supply without great expense and labor. Often he is ignorant of the condition of the water and milk which the family uses, since this can only be determined by analyses conducted by some local or State board of health.

Accidents often occur on the farm in connection with machinery in field work, in plowing, sowing, reaping, and the like. These are sometimes due to carelessness, though many of them are unavoidable, being caused by some break in the machinery. In the home the farmer's family is exposed to the usual hazards of falls, burns, and conflagrations which threaten any home in the city. First-aid kits and fire extinguishers are an essential part of the furnishing of every country home.

A. The Analyses of Children's Activities Involving the Practice of Safety

(1) *In the home.*—Home safety includes those safeguards that protect against falls, burns and scalds, poisons, electric shocks, and suffocation by gas. As these home accidents comprise 32 per cent of all injuries children received in 1930, they are the greatest menace so far reported to the safety of children. This type of survey is usually made by means of a home inspection blank filled in by the parents.

What is the child's attitude toward the hazards in the home? Is he impressed with their importance or is he indifferent to their observance?

Children in some school districts have conducted a survey of their own homes after a lesson has been given on one of these topics and have reported back to school the condition of the staircase at home, where the matches are kept, the protection of open fires they found in the home, where the medicine chest is located, and a list of all the bottles of medicine they found outside the chest.

Reports on first-aid kits were given in this connection, where they might be found, the condition of their contents, depleted or well-filled, and how many members of the family knew their use in case of emergency.

Older pupils examined the condition of the gas fixtures and the electric cords used in the homes. These surveys not only keep the children alert as to any danger in their homes but interest the parents greatly in keeping the home free from the menace of electrical and other hazards. Home inspection blanks are used in many schools. The Chicago course of study in safety uses the following blank:

HOME-INSPECTION REPORT FOR SCHOOL PUPILS

(To be filled by the pupils with the help of parents.)

SAFETY CONDITIONS IN MY HOME*

1. Name of owner of property.
2. Name of tenant of property.
3. Located at _____.

* Chicago, 1923. Safety education, a plan book for the elementary schools.

4. Is the house frame, brick, stone, or concrete? (Underline.)
 5. Is the basement floor wood or cement? (Underline.)
 6. Are the basement walls wood or concrete? (Underline.)
 7. Do you heat with stoves, furnace, or boiler? (Underline.)
 8. Are the chimneys in good repair?
 9. When were the chimneys last cleaned?
 10. Are heating pipes protected at floors and walls?
 11. Are you careful with hot ashes?
 12. Do you use common matches or safety matches? (Underline.)
 13. Is combustible material kept near stove or furnace?
 14. Are things kept piled in hallways or on stairways?
 15. Name all the purposes for which kerosene is used in the house.
 16. Are any gas connections made with rubber tubing?
 17. Where are the "dustless" oil mop and furniture-polishing cloths kept?
 18. Are there fire extinguishers in the house?
 19. Is flexible electric cord used in any other way than as drop cord?
 20. Do you keep matches in a metal box?
 21. Do you keep them out of reach of the little ones?
 22. Do you use gas for lighting?
 23. Are any jets near curtains?
 24. Do the valves of the gas stove open too easily?
 25. Do you keep gasoline or cleaning fluids in bottle, can, or jug? (Underline.)
 26. Is the gasoline can marked red?
 27. Are there electric switches near the floor?
 28. Are they safety switches?
 29. Are oily rags or papers stored in closet, cellar, or attic? (Underline.)
 30. Do you keep firearms in your home?
 31. Can the children get them to play with?
 32. Are any windows so low that one can easily fall out of them?
 33. Are there any weak or broken stair or porch rails?
 34. Do you heat any room with a gas heater? Tell the effect on the air in that room.
 35. What care should be taken in using an electric iron?
 36. Are bottles or boxes of poisons kept in the house? Where?
 37. Do you keep milk bottles or plant pots or boxes on window sills?
- This inspection made on the — day of —, 192—, by —, a pupil in room — of — School.

(2) *On the street.*—Street safety is determined by many types of inquiry. One of these is the inspection of the volume of traffic passing through at certain hours of the day. Usually this is determined by traffic counts taken at the peak

hour or at the hour when children are arriving at or departing from school. The condition of the street plays its part in the safety problem. If it is crooked and dark it is dangerous. Street names and house numbers well placed and plainly visible are a safeguard, for as "lost children" are counted among the frequent accidents, to little children these safeguards are important.

In street safety the control of traffic by officers or lights marked crosswalks, prohibition of parking cars near crosswalks, and 1-way streets are conditions affecting street safety. In personnel, the number and efficiency of school-boy patrols and traffic officers should be noted since the reduction of street accidents to 10 per cent of all reported for 1930 can be traced in part at least to these safeguards.

How carefully does the child observe these safeguards of the street? Are they adequate to protect him from accidents, should others be added, or new ones substituted for the old?

Highway traffic hazards in the country have also become a problem of utmost importance. Surveys of these conditions in different localities are necessary before a practical outline can be formulated for a school program on safety for rural schools.

(3) *In play and recreation and school subjects.*—Necessary regulations to protect children on the playground are important safeguards since 20 per cent of all accidents to children for 1930 occurred on school grounds, generally while children were at play. Ball games proved most dangerous, accidents occurring when pupils were outside their respective zones. Patrolling the grounds and zoning are the safeguards provided against these injuries. First-aid kits installed in every school and lessons in their use are also a part of the required safety regulations.

Does the child observe these regulations made to protect him? Does he play in his proper zone and obey the commands of the playground patrol? Which is at fault when accidents occur, the rule or the child? Does he know how to use a first-aid kit?

Because school accidents appear to be as common as accidents to the same children in their homes or in public places, according to Elson's survey in northeastern Minnesota, the following questionnaire on school accidents is given from an article by Doctor Stack.⁵

1. What are the most common accident hazards in your building?
Make a list of places where accidents have occurred.
2. How can these accidents be prevented?
3. What provision for administering first aid do you have in your school? If you do not have a first-aid cabinet or kit, either build or purchase one.
4. What are common causes of accidents in the chemical laboratory?
How may such accidents be prevented? Make a list of dangerous chemicals that are used in the laboratory. What precautions should be taken in the use of such chemicals?
5. What are some of the more common causes of accidents in your industrial art shops and in the practical arts classroom?
Henig found that the less intelligent boys have the greatest number of accidents in a vocational school. Why might you expect that this would be true? Are intelligent people more careful than people of less intelligence? Does knowing the safe thing to do always mean that we do the safe thing?
6. Of the causes of athletic injuries in school sports, football ranks first, followed by track athletics, and baseball. How can coaches prevent many athletic injuries?
7. Some high schools still use boys' rules for their girls' basketball teams. What serious objections are there to using boys' rules for girls?
8. Other schools use poor judgment in arranging events for junior high school track meets. Work out a series of events for a boys' meet and for a girls' meet paying particular attention to events that are too strenuous or too dangerous. What do we mean by saying, "He might have made a good athlete but he was 'burned out' in his high-school days"?
9. One of the most important reasons for rules in athletics is to protect the players. Tripping, holding, piling up, and illegal use of hands are forbidden in football. Holding, hacking, charging, tripping, and many other offenses are called personal fouls in basketball. Why are these serious infractions of the rules? Will there be a tendency for safer athletics when the best officials are employed by competing teams?

Within the school subject itself there often lurks a possibility of accident in classroom procedure. In the chemical

⁵ Stack, Herbert J. In *Safety Education*, December, 1929.

laboratory the breakage of glass utensils and the explosions of dangerous chemicals cause considerable damage. Certain precautions⁶ are taken against these laboratory accidents and are more or less efficacious through preliminary instruction concerning the use of the safetyhood, the danger of certain chemicals, especially concentrated acids and alkali, how to cut and bend glass, and caution in regard to experiments.

Other subjects also seem to have dangerous angles. The Los Angeles, Calif., secondary-school course of study in safety lists five major causes for pupil accidents in order of their importance, playground, gym apparatus, metal shop, street, and domestic science. Vocational schools show several tendencies in the trend of accidents while pupils are in training for vocations. A list⁷ is given of dangerous occupations in the vocational school, causes for which are computed on a lost-time basis which means the number of days the injured pupil is not able to work. During a term of four years in which instruction in accident prevention was intensively taught in the classroom the time lost dwindled from 44 days in the first year to 23 in the second, one-half day in the third, and four days lost in the fourth. Carpentry leads in hazardous occupations in this school, during the year 1923-24, electrical occupations came second, and auto repair comes third, while machine work records no accidents, and drafting but one. Months of the year have their degrees of danger as well as the subject. January and April, the two months just following the school vacations, show a decided trend in increase of accidents.

(4) *In the forming of health habits.*—In some schools health and safety are taught together with the greater stress placed upon the subject of health. Often the school nurse and doctor become a permanent part of the school personnel.

Inquiries are made regarding the pupil's eating habits and a record kept of the kinds of food eaten. Possible harm from drinking tea and coffee and how the body is warmed by the burning of its tissues are discussed.

⁶ Stack, Herbert J. Safety education in the secondary school. National Bureau of Casualty and Surety Underwriters, 1929.

⁷ Henig, Max S. Safety education in the vocational school. National Bureau of Casualty and Surety Underwriters, 1928.

The sleeping habits of each child are recorded, the time given to sleep, the covers used, and the night clothes worn. Open windows and plenty of fresh air in the bedroom are stressed in these lessons.

Daily inspection of the pupil's hands, teeth, and hair are required in many schools and the necessity for bathing every day is emphasized. In some schools the structure of the teeth, nails, skin, and hair are examined through the microscope. The functions of each of these is discussed and the necessity for cleanliness if they are to function properly.

In stressing this particular field of inquiry the committee will need to know what effect this type of training has upon the child's health habits. Does he follow the advice of the health teacher as regards eating, sleeping, and bathing?

(5) *In the prevention of fire.*—Every second of the day 10,000 matches are scratched in the United States. How many of these are extinguished before they are thrown away we can infer from the fact that half the fires in this country to-day are caused by matches and smoking. Next in importance as causes of fire come stoves, then furnaces, then boilers and their pipes, after which is listed incendiarism.*

Adequate fire protection in a community and its relation to the child needs investigation; first, as to the efficiency of the fire department; and second, the provisions made for fire protection within the child's home and the school building. But the child's own attitude toward these fire regulations is the important item in this inquiry. What does he do to safeguard life and property from fire? How may he be led into an eager campaign against the fire hazards around him and a determined effort to help to overcome them?

(6) *By civic safeguards.*—Civic protection, as a safety measure, includes the protection afforded by the inspection of food and milk, of sanitary housing conditions, and pure water supply. Doctor Downing, Director of Elementary Science in the University of Chicago, gives an account sum-

* *Safeguarding America against fire.* New York, 85 John Street. A monthly magazine devoted to fire prevention. Published by the National Board of Fire Underwriters.

marized below, of a survey made by a boy scout troop in the slums of Chicago which led to drastic reforms in tenement housing.

A boy scout troop connected with one of the churches in an aristocratic section of a large city undertook to clean up a slum "back of the yards." They found the conditions so serious that they decided to begin with one tenement which was the worst ramshackle building in the block and to concentrate on that.

They established friendly relations with the boys in the building and invited them to one of their troop meetings and were in turn invited to a meeting in the congested district. Finally the boys prepared a report on this building and submitted it to the owner, who professed that he did not know that such conditions existed. He at once tore down the building and replaced it with a good apartment house.*

A pupil questionnaire on this subject is taken from Doctor Dunn's study of the home and the community in *The Community and The Citizen*.¹⁰

What is being done in your community to improve the home life of the poorest families?

If there is no law forbidding it, has a man the right to make all the money he can by crowding as many tenants into a house as it will hold? Explain.

Show how good home life tends to decrease the need for government.

Are there any tenement-house laws in your community? If so, what are some of the most important?

PUPIL QUESTIONNAIRE ON WATER SUPPLY ¹¹

Nida, in *City, State, and Nation*, gives the following questionnaire on pure water supply:

Describe your city's waterworks. How does your city secure water pressure? Does your city own its own waterworks? What is the annual cost of city water for your home? Can you read a water

*Downing, Elliot B. Teaching hygiene and sanitation. Reprint from *School Science and Mathematics*, vol. xxiii, no. 7.

¹⁰Adapted from Dunn, Arthur William. In *The Community and The Citizen*. Heath.

¹¹Nida, William L. In *City, State, and Nation*. New York, Macmillan Co.

meter? Does your city need to filter its water? Why, or why not? Do other cities contaminate your water supply? Find out from your health officer how many deaths occur annually in your city, due to typhoid.

PUPIL QUESTIONNAIRE ON SEWAGE SAFETY

A modified questionnaire from Doctor Dunn's *The Community and The Citizen* is given here:

What are the city ordinances regarding the collecting of garbage? Where does it go when it leaves your house? How is it finally disposed of? How large is the main sewer in your town? How is it built? How is it kept clean? Is it safe to drink water from a river where sewage empties? Under what conditions?

(7) *In industrial occupations.*—If the community under inspection is industrial a list of the occupations of the men and women will be needed to understand the hazards which threaten the lives of the parents in their work. In one school district in New York City the fathers were engaged in 129 different occupations and the mothers in 30. Some knowledge of safety was essential in each of these occupations. The children, themselves, often leave school at the earliest possible moment to enter into some gainful occupation, for the shop, the factory, and the street trades all beckon to them with the lure of wages and money to spend. They need to know something of the dangers they are to encounter in their work and to be in a measure prepared to meet them.

The following questionnaire is taken from *The Good Citizen*, by Hepner:¹²

What is an industrial accident? What is the law in your State regarding such accidents? What usually causes industrial accidents? How do workers get compensation? How does your department of labor cooperate with your department of education for the prevention of child labor? For the protection of children lawfully employed? If possible find out what laws are on your statute books in regard to the heating, lighting, and sanitation in factories and shops.

(8) *In transportation.*—About 4,000 children under 15 years of age met their deaths through automobile accidents in 1922. This was more than 29 per cent of the motor

¹² Hepner, Walter R. and Francis K. *The Good Citizen*. Boston, Houghton Mifflin.

vehicle deaths for that year. In 1928 less than 20 per cent of those killed by automobiles were children.

"Behind this decreasing rate," says Mr. Whitney, of the National Safety Council, "lies an interesting story of the adjustment of education to life as it must be lived by modern children. For this decrease in automobile accidents did not just happen. It may be traced directly to intelligent and constructive programs in safety education which have been conducted in our schools with the cooperation of police departments, chambers of commerce, automobile clubs, and insurance and industrial groups."

Safety in transportation requires protection against accident in railroad travel, automobile travel, trolley car, and airplane.

Pertinent questions on transportation from Nida's City, State, and Nation are given here:¹³

Where do the largest number of deaths from train accidents occur? How is the danger overcome in many cities? Have the steam roads of your city elevated tracks? Does your city have elevated electric roads? Has your city a subway? What are subways and what are their merits?

In addition to those sources already mentioned the curriculum committee will find in cities and towns certain data concerning types of accidents, and the time of day and the month of the year when they occur. These may often be secured from the bureau of public health, the bureau of public safety, and the police department of the city.

The National Safety Council reports Accident Facts for 1930, which give valuable data for fact-finding committees engaged in neighborhood surveys. The United States Department of Commerce issues each year studies in safety, and the United States Bureau of Standards offers a recently revised bulletin on "Safety in the Household."

Often a study of some phase of safety like the recreational survey by the Russell Sage Foundation, conducted by Charles J. Storey, appears with pertinent data on the subject.¹⁴ Particular attention is called to Doctor Henderson's

¹³ Nida, W. L. *In City, State, and Nation*. New York, Macmillan Co.

¹⁴ Unpublished material of recreational survey conducted by Charles J. Storey, Russell Sage Foundation, New York City.

survey of playground accidents as reported in Safety Education for April, 1929, and to the United States Department of Labor's report on industrial accidents in their bulletin for 1927."

Summary.—The safety of the child at home, on the street, at play, his protection from fire and from disease, and the safeguards which surround him as he works and rides through the streets are all of interest to a curriculum committee which is planning a course of study that will help him not only to form safety habits but also to appreciate a friendly neighborhood's attempts to insure his welfare and happiness.

B. The Analysis of Available Material in Magazines, Statistical Reports, Etc.

Another type of inquiry upon which objectives may be based are the reports from State, county, and town officials, insurance companies, Federal Government agencies, and other fact-finding organizations in whatever respect these reports may touch the child's activities. Among these may be mentioned the city report from Baltimore, Md., statistical division of the safety council, entitled, "Baltimore, To-day and To-morrow"; the Metropolitan Life Insurance Co. of Albany, N. Y., "Introducing Safety Education into a Community," which is a description of the educational safety work in Albany; "Stopping Street Accidents," a history of the New York City's bureau of public safety for 1925, written by Barron Collier; "Statistical Sources for a Demographic Study of Greater New York," for 1925, by Walter Laidlaw; The National Safety News, Chicago, 1925; "A Place for Safety in Chicago," by Lewis A. DuBlois, from the Chicago National Safety Council for 1924. In addition to these are many others that might be mentioned, notably a monthly bulletin issued by the Milwaukee, (Wis.) Safety Council "with safety facts for school-teachers, to assist in giving the children of Milwaukee a continuous safety education."

²⁵ Chaney, Lucian W. Record of Industrial Accidents in the United States to 1925. United States Department of Labor, 1927, p. 25.

For State reports on safety, among many others of separate issue, there are listed in the *National Safety News*, the following: "What State governments are doing for safety," March, 1922; "Helping New Jersey employees in safety and sanitation," by John Roach, March, 1922, and "State laws and public safety," August, 1923. State and city reports are supplemented by the National Safety Council publications of wide scope and purpose, and the National Fire Protection Association, 60 Batterymarch Street, Boston, which issues a supplement for Fire Protection Week, October 5-11, 1930, called, "Facts about Fire." One of the most outstanding publications is the Twenty-fifth Yearbook of the National Society for the Study of Education, entitled, "Present Status of Safety Education."

Of the Federal Government bulletins on safety, the Bureau of Standards report "Safety in the Household," has already been mentioned. There are also reports on some phases of safety from the Department of Commerce as follows: The annual report of the steamboat inspection service, the Report of the Bureau of Safety, the Annual Report of the Director of Aeronautics; from the Department of Agriculture, the United States Weather Bureau reports; and from the Treasury Department, the Annual Report of the United States Coast Guard.

School reports on accidents to school children are now reported and tabulated in many instances and prove of great value in determining objectives in safety education. These data are usually based upon the reports of pupils who have been detained at home for a certain length of time, on account of accidents. The following form is prepared by the National Safety Council and is in use in many school systems:

Student Accident Report

Every child in the public schools of _____ is to report on this card every accidental injury which requires medical attention or which keeps him out of school one-half day or more. Teachers should fill out reports where children injured are unable to do so for any reason.

WHO WAS HURT?

Name _____ Address _____
Age _____ Sex _____ School attended _____ Grade _____

WHEN DID ACCIDENT HAPPEN?

Date _____ Time _____ a. m. _____ p. m.

WHERE DID ACCIDENT HAPPEN?

At school? _____ If so, in building or on playground? _____
On the street? _____ If so, where? _____
Was this an automobile accident? _____
If on the street, was it on the way to school? _____ From school? _____
At home? _____ If so, was it in the house? _____ Outside house? _____
If somewhere else, state where _____

HOW DID ACCIDENT HAPPEN?

What was person doing when hurt? _____
(Playing baseball, crossing street, jumping rope, climbing stairs, sawing wood, washing dishes, building fire, etc.)
Describe the accident _____

WHAT KIND OF AN INJURY WAS IT?

(Broken arm, fractured skull, cut finger, bruised toe, burned hand, etc.)
Was a doctor called? _____ If so, state his name and address _____

Number of days kept from school _____
Signature of Teacher _____

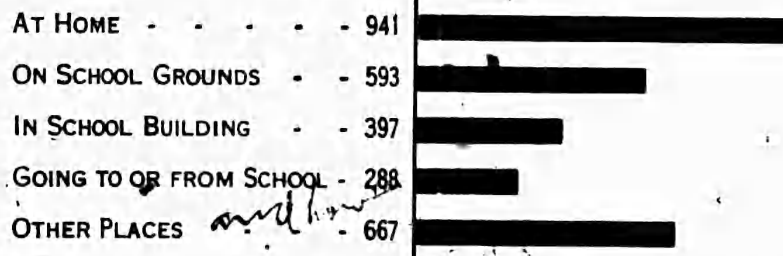
NATIONAL SAFETY COUNCIL

The importance of these reports in determining objectives in safety education is self-evident. They point the way to the dangers that encompass the activities of the child and menace his well-being. They paint a vivid picture of his environment and furnish the curriculum-making committee with pertinent facts in addition to those acquired through an analysis of the child's various activities. That these data are illuminating can be seen from an examination of a few of the tabular materials appended here.

Fortunately for the fact-finding committee these reports of national import have been collected from many sources by the National Safety Council and are issued in pamphlet form under the title of "Accident Facts for 1930." Among the most important are the tabular materials which have to do with the child's activities during his school age. A graph showing the number of accidents to a selected group of school children by place is among the foremost of these. (See following graph.)

ACCIDENTS TO SCHOOL CHILDREN BY PLACE OF ACCIDENT*

SEPTEMBER 1929 TO JANUARY 1930



* AS REPORTED TO THE NATIONAL SAFETY COUNCIL FROM SCHOOLS WITH 246,700
AVERAGE ENROLLMENT

These data are reported from schools with 246,700 average enrollment. They show that home accidents predominate over all others reported by place, and that accidents on school grounds come second. The school building itself is the third most dangerous place for the child to be,

and going to and from school is the least dangerous of all places reported. In other words the street has become safer than the home, the school grounds, and the school building. Mr. Whitney, of the National Safety Council, attributes this fact largely to the effort that has been made to protect the children on the street from accidents. Increased control of traffic by city authorities, schoolboy patrols, and safety education in the schoolroom are among the most important of these efforts.

TABLE 1.—*Student accidents per 100,000 student-days: September, 1929-January, 1930*

[Average enrollment, 246,700]

Grade	Total ¹	School buildings	School grounds	Going to or from school	Home	Other
1	2	3	4	5	6	7
All grades.....	12.0	1.6	2.5	1.2	3.9	2.8
Kindergarten.....	6.0	0.5	0.8	0.5	2.2	1.3
First.....	9.8	.6	2.6	1.1	3.6	1.6
Second.....	10.7	.6	2.8	1.5	3.7	2.1
Third.....	11.6	1.2	2.8	1.2	4.2	1.6
Fourth.....	10.7	1.2	2.6	1.2	2.8	2.2
Fifth.....	14.1	1.3	3.1	1.1	4.0	3.3
Sixth.....	15.1	2.0	4.0	1.2	4.0	3.0
Seventh.....	15.2	3.6	1.8	1.7	3.8	3.6
Eighth.....	14.5	3.1	1.4	1.6	4.1	4.2
Ninth.....	9.9	2.4	1.3	.8	2.4	2.4
Tenth.....	15.8	3.4	3.0	1.6	2.8	5.0
Eleventh.....	15.8	2.0	4.2	1.7	2.4	4.3
Twelfth.....	15.7	2.6	3.6	1.9	2.1	4.6
Unclassified ²	8.7	2.0	1.7	.7	2.2	1.7

¹ Totals do not equal sum of individual types of accidents because of failure of some schools to furnish information in detail.

² Includes ungraded and vocational school students.

Another interesting study, Table 1, continues the study of accidents to school children and includes both the child's grade in school at the time of the accident and the place where it occurs. As will be seen from the figures in this table the peak of danger to elementary school pupils comes in the sixth grade and on the school grounds. Home accidents, however, are on a par with school accidents for this grade, showing a decided trend toward thoughtlessness at this age both at home and at school.

The kindergarten grade, on the other hand, is the safest grade in the elementary school, both at home, on the way

to and from school, and on the school ground. This may be accounted for by the special provisions made for children in this grade by parents and by city and school authorities. Traffic officers and school-patrol escorts are provided especially for kindergarten children and a special playtime is assigned to them at a period when the playground is unoccupied by older pupils.

To summarize this table and to make a national application of these data will give us some idea of the serious menace that school and home accidents may become. Only four months of the school year are represented here, from September, 1929, to January, 1930, inclusive. This group of schools has an enrollment of 246,700 pupils, the days lost from school through injury are 11,389, involving 2,906 accidents and 26 deaths. Applying these data to a 10-month school year and to the 30,000,000 students attending all types of schools in the United States at this time we have 2,700,000 school days lost through 700,000 accidents and 6,300 of them proving fatal.

Playground accident data are found in many of these reports, an analysis of which will prove of value in determining objectives in play and recreation. Tables showing percentages of accidents on the playground according to apparatus, according to types of play and athletics, and according to usage, are found in Safety Education for April, 1929, in an article by John C. Henderson, entitled "How Safe is the playground?" A table on major school accidents is given in the Los Angeles city school course of study and many other cities in their courses of study give tables of local statistics in regard to various types of accidents occurring in their community. Injuries by automobiles and other vehicles, accidents in the home, fire losses, communicable diseases, with tables and graphs showing comparisons with other cities and States are among the most important of these neighborhood curricula.

Worcester, Mass., in its course of study on safety has the following tables and graphs:

Children killed in Massachusetts in 1925. (Graph.)

Fatal accidents in the United States. (Graph.)

Automobile fatalities in the United States. (Graph.)

Automobile death rates per 10,000 in the United States. (Graph.)

Data for Massachusetts. (Table.)

Massachusetts motor vehicle fatalities. (Table.)

Summary of fatal accident statistics in Worcester. (Table.)

Registration of communicable diseases for Worcester. (Table.)

Classification of fire losses in Worcester, 1924. (Table.)

Fire losses 1869 to 1923, inclusive, in Worcester.

Comparison of automobile fatalities per million population—Washington, Rochester, Pittsburgh, Buffalo, New York, Chicago, St. Louis, and Detroit. (Graphs.)

Classification of motor vehicle fatalities for 1924 in the United States. (Graph.)

Classification of accidental fatalities in homes for 1924 in the United States. (Graph.)

Traffic accidents in Worcester during 1926. (Table.)

An analysis of data in courses of study in safety as compared with pupil experiences in connection with accidents is made by Doctor Streitz,¹⁶ using as a basis the items on safety as found in 17 courses of study. The questions used in this survey were submitted to all pupils from fourth to eighth grades in a school district in New York City and replies were received from 1,050 children. Below is given a partial list of the items and the number of children reporting on each. By selecting those items from which the pupils in this district most frequently suffer, the determining of objectives becomes comparatively simple. For instance, only one child has been hurt by "coasting in streets not closed to traffic," but 52 have been injured "roller skating in the street." In connection with fire the items most dangerous in the experience of these pupils are careless use of matches, Fourth of July celebration, window curtain blowing into flame, and electric irons. No fewer than 226 of the pupils reporting had some experience with scalds and burns caused by scalding water or other hot liquids. Sixty-four pupils recorded accidents from steam from teakettle, 72 from handles of pans extending over edge of stove, and 67 from getting too near the radiator. In view of these last items it is easy to see why home accidents lead all the

¹⁶ Streitz, Ruth. Safety education in elementary schools. New York, National Bureau of Casualty and Surety Underwriters, 1926.

rest. Other experiences of children in this district as recorded here should be equally illuminating.

Have you ever been hurt—

1. When crossing the street? (140.)
 2. When crossing the street in the middle of the block? (39.)
 3. Stepping into the street from behind parked cars? (17.)
 4. Playing in the street? (31.)
 5. Hopping trucks and other vehicles? (37.)
 6. Holding onto auto, street car, or other vehicle when on bicycle or skates? (28.)
 7. Running into street after ball or hat? (41.)
 8. Hooking rides with sled? (22.)
 9. Failure to signal if riding a bicycle? (14.)
 10. Riding on handle bars? (37.)
 11. Roller skating in the street? (52.)
 12. Using scooters or express wagons in the street? (8.)
 13. Coasting in streets not closed to traffic? (1.)
 14. Getting on and off street cars? (21.)
 15. Holding umbrella the wrong way while crossing the street? (—.)
 16. Crossing the streets on which there are street car and railroad tracks. (13.)
 17. Backing up of truck? (1.)
- Fire caused by—
1. Careless use of matches? (39.)
 2. Window curtain blowing into open flame? (19.)
 3. Going into closet with lighted match? (11.)
 4. Upsetting candles? (13.)
 5. Filling lamps? (7.)
 6. Broken gas mantle? (17.)
 7. Looking for leaks in gas pipe with lighted match or candle? (7.)
 8. Not having zinc or sheet metal to protect floor and walls from stove? (4.)
 9. Burning rubbish in open fireplace? (4.)
 10. Bonfires? (8); and oily rags? (3.)
 11. Leaving a campfire unprotected? (1.)
 12. Escaping gas? (14.)
 13. Ashes, oily rags, and waste? (1.)
 14. Electric irons? (17.)
 15. Improper use of stove polish, or cleaning fluid? (2.)
 16. Burn from oil lamp? (1.)
 17. Improper use of kerosene, gasoline, and alcohol? (11.)
 18. Careless use of cigars and cigarettes by members of your family? (14.)
 19. Celluloid toys and combs too near the fire? (14.)
 20. Clothing and towels hung too near fire or gas heater? (11.)

21. Christmas tree decorations? (15.)
 22. Fourth of July celebration? (35.)
 23. Reasons unknown? (7.)
- Scalds and burns caused by—
1. Scalding water or other hot liquids? (226.)
 2. Handles of pans extending over edge of stove? (72.)
 3. Steam from teakettle? (64.)
 4. Getting too near stoves or radiators? (67.)
 5. Stepping in bonfire? (1.)

C. The Analysis of Existing Objectives in Courses of Study in Safety Education

The third means by which objectives in safety education may be determined is by the analysis of existing objectives as found in courses of study already formulated by curriculum-making committees.

Up to 1928 about 350 schools out of 1,862 reporting to the National Safety Council issued separate courses of study in safety. This chapter presents an analysis of some of these courses which may be helpful to superintendents and teachers who desire to prepare their own course of study on this subject. A list of some of these courses is given in the appendix, most of which may be secured from the superintendents of schools where the courses of study are issued.

In the charting of 20 city and 9 State courses of study in safety those courses were selected which were issued in or subsequent to the year 1925.

The following items have been included in the analysis of courses:

- (a) The philosophy of safety education.
- (b) Objectives in safety education.
- (c) Organization of subject matter.
- (d) School patrols.
- (e) School safety organizations.
- (f) Activities:
 1. Projects.
 2. Units of study for grades 1-6.
 3. Units of study for high schools.
 4. Surveys and questionnaires.
- (g) Correlations of safety with other subjects.
- (h) Safety tests.
- (i) Safety materials for teachers.
- (j) Safety materials for pupils.

DETERMINING OBJECTIVES

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TABLE 2.—Analysis of 20 city courses of study on safety

City	Year of issue	Philosophy of safety education	Objectives	Organization of subject matter	School patrols	Safety organizations	Correlations	Projects	Activities	Units for grades (1-6)	Units for high schools	Safety survey	Questionnaires	Tests	Materials for teachers	Materials for pupils
1	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Austin, Tex.	1923		X	G, 8			X	X	X	X		X	X		X	X
Birmingham, Ala.	1927	X	X	G	X	X	X	X	X	X		X	X		X	X
Chattanooga, Tenn.	1926		X	G	X	X	X	X	X	X		X	X		X	X
Chicago, Ill.	1923	X	X	8	X	X	X	X	X			X	X		X	X
Cleveland, Ohio	1926	X	X	G, 8, T	X	X	X	X	X	X	X		X		X	X
Des Moines, Iowa	1929	X	X	8	X	X	X	X	X	X			X		X	X
Detroit, Mich.	1923	X	X	G	X	X	X	X	X	X			X		X	X
Fort Wayne, Ind.			X	G, 8			X	X	X	X		X			X	X
Kansas City, Mo.	1927	X	X	G	X	X	X	X	X	X					X	X
Los Angeles, Calif.	1927	X	X	G	X	X	X	X	X	X		X			X	X
Louisville, Ky.	1925		X	G	X		X	X	X	X			X		X	X
Minneapolis, Minn.	1930	X	X	T, G	X	X	X	X	X	X					X	X
Newark, N. J.	1923	X	X	8	X	X	X		X			X			X	X
New Bedford, Mass.	1927	X	X	8		X	X		X						X	X
New Orleans, La.	1930	X	X	G		X	X	X	X						X	X
Omaha, Nebr.	1925		X	T	X	X	X	X	X	X					X	X
Pueblo, Colo.	1929	X	X	T	X	X	X	X	X	X					X	X
St. Louis, Mo.	1927		X	G	X	X	X	X	X	X	X				X	X
Watertown, N. Y.	1929	X	X	G		X	X	X	X	X					X	X
Worcester, Mass.	1925	X	X	G	X	X	X	X	X	X		X	X		X	X

NOTE.—Organization of subject matter around topics T; seasons S; grades G.

TABLE 3.—Analysis of 8 State courses of study on safety

State	Year of issue	Philosophy of safety education	Objectives	Organization of subject matter	School patrols	Safety organizations	Activities	Projects	Units for grades (1-6)	Units for high schools	Safety survey	Questionnaires	Correlations	Tests	Materials for teachers	Materials for pupils
1	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Connecticut.....	1927	X	X	T, G	X	X	X	X	X	X	X	X	X	X	X	X
Georgia.....	1926	X	X	T	X	X	X	X	X	X	X	X	X	X	X	X
Indiana.....	1926	X	X	T, G	X	X	X	X	X	X	X	X	X	X	X	X
Massachusetts.....	1928	X	X	T, G	X	X	X	X	X	X	X	X	X	X	X	X
Michigan.....	1928	X	X	T, G	X	X	X	X	X	X	X	X	X	X	X	X
Nebraska.....	1929	X	X	T	X	X	X	X	X	X	X	X	X	X	X	X
North Dakota.....	1928	X	X	T	X	X	X	X	X	X	X	X	X	X	X	X
Ohio.....	1930	X	X	G	X	X	X	X	X	X	X	X	X	X	X	X

NOTE.—Organization of subject matter around topics T; seasons S; grades G.

All courses of study in safety education make some statement of objectives which sets forth the aims and purposes for the training of children in safety habits. Those that are given here are taken from the White House Conference report, from the elementary school courses in safety from Minneapolis and the State of Massachusetts, and from very comprehensive studies made by Dr. Ruth Streitz and Dr. Herbert Stack.

The White House Conference on Child Health and Protection through its subcommittee on safety education gives the following objectives:

The general objective of safety education is the development of such safety habits, safety attitudes, and safety skills as will cause a decrease in the number of accidental deaths and injuries to children, produce safer adults for the future, and give to each individual freedom from fears and conditions which may restrict his enjoyment of life. The importance of activities in a school safety program is the direct result of the importance of habit formation as one of the results of that program. Attitudes are important, too, and a child who has been taught safety effectively should have distinguishing characteristics.

KINDERGARTEN TO GRADE VI

To develop habits of personal safety.

To develop a consciousness of responsibility for the safety of others.

To develop a spirit of cooperation in solving problems of social significance particularly community problems; and a respect for community regulations.

To develop an understanding of the common causes of accidents and a knowledge of how to meet them.

The Minneapolis course of study in safety gives the following general objectives of safety education:

(a) To habituate the child in certain modes of conduct that will aid in safety—in school, at home, on the street, and on the playground.

(b) To develop an attitude of respect for the rights of others.

(c) To develop an appreciation of the need for safety.

(d) To develop a feeling of responsibility for the safety of others.

(e) To develop an appreciation of community and nation-wide interest in safety.

The State course of study for Massachusetts (1928) outlines the following objectives:

- I. To give children an understanding of situations involving hazards that their behavior in these situations may be intelligent.
- II. To develop habits of conduct which will enable children to meet the situations of daily life without accident.
- III. To develop habits of conduct which will function in different situations and in times of crisis.
- IV. To develop a generation characterized by habits of carefulness.
- V. To develop skill in control of bodily movement.
- VI. To create right attitude including—
 - (a) Respect for law and officers of the law.
 - (b) Willingness to assume responsibility for the safety of self and others.
 - (c) Willingness to cooperate in organized efforts to secure safety.
- VII. To eliminate all preventable accidents.

SPECIFIC OBJECTIVES—KINDERGARTEN, FIRST AND SECOND GRADES

- I. To develop in pupils habits of carefulness and obedience to safety rules when in the city streets or on the country roads.
- II. To develop habits of carefulness in the use of apparatus, tools, and construction materials in the classroom.
- III. To develop good habits of school housekeeping.
- IV. To develop habits of orderliness with playthings at home.
- V. To lead children to understand the right use of the public playground and play apparatus.
- VI. To develop alertness, agility, and bodily control through rhythmic exercises, games, stunts, and the use of apparatus.
- VII. To direct children to safe places for sliding and skating.
- VIII. To lead children to use caution when playing in and near water.
- IX. To develop habits of carefulness in prevention of fire and an understanding of what to do in case of fire.
- X. To lead children to understand the meaning of railroad signs and to keep away from railroad tracks, except when crossing is necessary.

SPECIFIC OBJECTIVES—THIRD AND FOURTH GRADES

- I. To continue the development of safety habits in the street, school, and home.
- II. To develop habits of conduct on the street that will eliminate accidents.
- III. To study how our cities control traffic through traffic police, silent policemen, and automatic signals.

- IV. To teach children how to enter and leave a public conveyance properly.
- V. To teach children the right use of the public playground and play apparatus.
- VI. To continue the development of skill in control of bodily movement through dancing, games, stunts, and use of apparatus.
- VII. To direct children to the proper places for skating and coasting and teach the conditions under which it is safe to skate or coast.
- VIII. To develop habits of caution when near the water and to encourage children to learn to swim under right conditions.
- IX. To continue to develop habits of carefulness in the prevention of fire.
- X. To teach children what to do in case of fire.

SPECIFIC OBJECTIVES—FIFTH AND SIXTH GRADES

- I. To continue the practice of safety habits in the street, school, and home.
- II. To study accidents that occur in your school district, community, or city; where, how, when, and why they occur and what we can do to prevent them.
- III. To become acquainted with agencies which are organized for the purpose of preventing accidents.
- IV. To organize safety clubs and safety patrols for the purpose of protecting selves and others against hazards.
- V. To know why the driver of motor vehicles must have a license, how it is obtained, why it is suspended or revoked.
- VI. To study mechanical devices for safety connected with transportation vehicles.
- VII. To lead children to use good judgment when playing near, in, or on the water.
- VIII. To study the causes of home accidents, making comparisons between city and country.
- IX. To gain some knowledge of what our industrial plants are doing to prevent accidents.
- X. To study methods of first aid necessary in common accidents.

The following outline for securing and organizing curriculum materials in the elementary schools is taken from Doctor Streitz's study of Safety Education in the Elementary Schools.²⁷

I. GENERAL OBJECTIVES OF SAFETY EDUCATION

- 1. Approximate aims of safety education.
 - (a) Selecting safe things to do.
 - (b) Doing things in a safe way.

²⁷ Ibid.

1. Approximate aims of safety education—Continued.

- (c) Thinking what is safe to do.
- (d) Preventing others from being hurt.
- (e) Helping others who are hurt.
- (f) Thinking and planning for the safety of others.
- (g) Contributing to the general safety of the community.
- (h) Investigating and learning how situations are made safe.
- (i) Investigating and learning to see how conditions may be made safe, comfortable, and convenient.

2. Controlling principles with respect to selection and organization of subject matter.

- (a) Specific traits functioning in real life activities.
- (b) Safety curriculum subject matter to be learned and practiced.
- (c) Immediate and remote outcomes with reference to the child's safety.
- (d) A safety curriculum should constitute all the important safety items from which a classroom curriculum may be selected.
- (e) Safety items should supply the child with specific ways of behaving.
- (f) Selection and organization of safety items should enable the child to build a growing appreciation of safety values.
- (g) The child will organize out of his own experience.
- (h) Any safety item can be considered learned when it functions successfully in a hazardous situation.
- (i) Safety items should be learned in association with other desirable traits.
- (j) The work should not be planned on the basis of assigned lessons. It should come out of the child's experience.

II. SPECIFIC OBJECTIVES DETERMINED BY SOCIAL SURVEYS OF THE SCHOOL

- 1. School selected for the study.
- 2. Location of the school building.
- 3. Recreational facilities of the neighborhood.
- 4. Character of the neighborhood.
- 5. Occupation of the parents.
- 6. Homes in the district.
- 7. Nationality.
- 8. Summary conditions in the district in regard to safety education.

III. SPECIFIC OBJECTIVES DETERMINED BY SURVEY OF PUPIL EXPERIENCES REGARDING ACCIDENTS

- 1. Question blank.
 - (a) Fire caused by—
 - (b) Scalds and burns caused by—

1. Question blank—Continued.

- (c) Falls caused by—
- (d) Accidents in the streets—
- (e) Railroad accidents—
- (f) Other accidents caused by—

2. Comments upon information secured from question blanks.

IV. SPECIFIC OBJECTIVES LOCATED BY STATISTICAL REPORTS OF ACCIDENTS IN SCHOOL DISTRICT

1. Data secured from Bureau of Public Safety and Police Department.

2. Conclusions drawn from accident statistics.

V. SPECIFIC OBJECTIVES LOCATED IN COURSES OF STUDY IN SAFETY EDUCATION

- 1. Home safety.
- 2. Street safety.
- 3. Play or recreational safety.
- 4. Health as a safety measure.
- 5. Fire prevention.
- 6. Civic protection—A safety measure.

VI. SPECIFIC OBJECTIVES LOCATED IN TEXTBOOKS IN SUBJECT-MATTER FIELDS

- 1. Selection of texts for analysis.
- 2. Analysis of texts in general science.
- 3. Analysis of textbooks in civics.
- 4. Analysis of textbooks in home economics.

Determining Objectives in Secondary Schools

The following outline for securing and organizing curriculum materials in secondary schools is taken from Doctor Stack's study of Safety Education in Secondary Schools.¹⁸

ANALYSIS OF CHILDREN'S ACTIVITIES INVOLVING THE PRACTICE OF SAFETY

1. Methods of securing data.

- (a) An analysis of secondary data giving the causes of accidents in home, school, and public places.
- (b) An analysis of data showing the causes and prevention of fires.
- (c) A study of the common safety activities and methods of preventing accidents in industry and transportation.

¹⁸ Stack, Herbert J. Safety Education in Secondary Schools. Objectives and Materials of Instruction. New York, National Bureau of Casualty and Safety Underwriters, 1929.

1. Methods of securing data—Continued.

- (d) An analysis of data showing the nature of common injuries.
- (e) A study of first-aid books giving the method of treatment for common injuries.
- (f) A questionnaire study showing the safety activities in secondary schools.
- (g) An analysis of the safety material in 38 secondary school textbooks.
- (h) A study through the use of a safety test, of the educational shortage of a sampling of secondary school pupils in certain schools.

2. Methods that have been utilized in organizing curriculum materials.

- (a) The record of accidents and preventable wastes—an indication of educational shortage.
- (b) The common safety activities by which individuals and society protect themselves.

NOTE.—In order to determine these common life activities by which an individual or society protects itself, a study has been made such as the following:

1. What fire-prevention activities are used by communities in reducing fires?
2. What safety activities are organized by industries to reduce accidents?
3. What safety activities are utilized in land and water transportation to reduce accidents?
4. What safety activities of the individual will tend to reduce drowning accidents?
5. What safety activities are performed by school safety patrols and councils?
6. What safety activities on the part of the individual will tend to reduce automobile accidents?
- (c) The common safety materials found in textbooks and courses of study.

✓ Objectives in Safety Education in Secondary Schools

The following objectives in safety education for secondary schools are listed by Doctor Stack under the topics of (1) home safety, (2) street safety, (3) play or recreational safety, (4) health as a safety measure, (5) fire prevention, (6) civic protection a safety measure, (7) safety in industry, and (8) safety in transportation.¹⁰

¹⁰ Stack, Herbert J. *Safety Education in the Secondary Schools*. New York. National Bureau of Casualty and Surety Underwriters. 1926.

I. HOME SAFETY OBJECTIVES

THE CAUSE AND PREVENTION OF THE ACCIDENTS OF PRESCHOOL CHILDREN

(Home nursing, home planning)

1. To know the common causes of accidents to preschool children.
2. To know the hazards that may exist in and about home.
3. To know how to prevent such accidents.

PREVENTION OF GAS ACCIDENTS IN THE HOME

(Household arts—General science)

1. To learn the common causes of gas accidents in the home.
2. To know the dangers of exhaust gas of automobiles.
3. To understand how to use ordinary safeguards against gas accidents.
4. To understand the causes of the formation of coal gasses from stoves or furnaces.
5. To know what to do when a person has been overcome by gas.

PREVENTION OF ELECTRICAL ACCIDENTS

(General science, electricity, physics)

1. To know the dangers associated with high-voltage circuits.
2. To know the dangers in connection with all electric-light wires.
3. To know the electrical hazards of cords and electrical devices.
4. To know the dangers of overloading electric circuits.
5. To know the dangers associated with amateur electrical installations or repairs.
6. To know what to do when something is wrong with wires inside and around the home.
7. To know what to do in case of electrical accidents.

II. STREET SAFETY OBJECTIVES

THE CAUSES AND PREVENTION OF MOTOR-VEHICLE ACCIDENTS

(General science, auto mechanics, and physics)

1. To know some of the common causes of motor-vehicle accidents due to the action of the operator.
2. To know the traffic regulations of the community and to know something about the uniform vehicle code.
3. To know what is necessary to procure a license to operate motor vehicles.
4. To know the most common physical defects of motor vehicles that may cause accidents.
5. To know the hazards of grade crossings and the safest way of using such crossings.
6. To know the necessity of caution in operating motor vehicles in icy, rainy, or foggy weather.

7. To know the most common occurrence of accidents where pedestrians are involved.
8. To know the danger of riding in motor vehicles when the driver is under the influence of liquor.
9. To exercise care in crossing streets under all conditions.
10. To know the importance of waiting for favorable signals for crossing the street.
11. To know what the community and State are trying to do to reduce automobile accidents.

III. PLAY OR RECREATIONAL SAFETY

SUGGESTED PROGRAM FOR THE PREVENTION OF SCHOOL ACCIDENTS

(For principals, physical directors, and teachers)

1. To carry on a study to locate the kinds of accidents that take place in and around the school.
2. To see that some kind of traffic control is afforded in playgrounds and building.
3. To see that pupils are protected against traffic dangers outside the school building.
4. To see that there is proper supervision of gymnasium and swimming pool activities.
5. To see that as far as possible fire hazards and accident hazards are eliminated from school buildings.
6. To see that proper supervision is given to prevent accidents in industrial and domestic art activities.
7. To see that every precaution is taken to prevent laboratory accidents.
8. The prevention of athletic injuries.
9. To see that first-aid materials are available in school buildings.

IV. THE OBJECTIVES OF HEALTH AS A SAFETY MEASURE

FIRST AID

(Physical education, health, home nursing)

1. To know how to treat cuts, lacerations, abrasions, scratches, and punctures.
2. To know how to treat bruises, swellings, and contusions.
3. To know how to administer first aid for wrenches, sprains, and strains.
4. To know what to do for patients suffering from fractures, dislocations, or broken bones.
5. To know the best aid treatment for sunburn and other burns and scalds.
6. To know how to check bleeding from various parts of the body.
7. To know how to treat shock or fainting.

8. To know how to treat persons suffering from gas poisoning, electric shock, or drowning.
9. To know what to do for various poisons, external and internal.
10. To know what to do for bites of poisonous snakes or dog bites.
11. To know how to treat sunstroke or heat prostration.
12. To know what to do for frostbite or freezing.
13. To know some of the common usages of bandages.
14. To know some of the common lifts and carries.
15. To know what to select for a home or school first-aid kit.

V. FIRE PREVENTION OBJECTIVES

(General science—Community civics or extra curricular activities in fire prevention)

1. To observe precaution in regard to matches and smoking.
2. To understand the necessity for care in the use of stoves, boilers, and furnaces.
3. To understand the necessity of having flues and chimneys inspected and cleaned.
4. To exercise precaution relative to hot ashes, open grates, and fireplaces.
5. To see that rubbish and litter is kept cleaned up and oily rags are placed in proper receptacles.
6. To understand the dangers of starting bonfires or burning rubbish.
7. To know the hazards in regard to electric heaters, flat irons, and other electric devices.
8. To observe precaution when using gasoline, kerosene, and other inflammable oils.
9. To observe precautions in handling gas, candles, and various kinds of lamps.
10. To observe care in regard to using fireworks.
11. To be able to inspect homes to locate common fire hazards.
12. To use precautions in regard to hot grease, turpentine, and oils.

VI. OBJECTIVES IN FIGHTING FIRES

1. How to use a fire extinguisher.
2. How to call the fire department.
3. To know what to do when one's clothes catch on fire.
4. To know how to escape from a smoke-filled room.
5. To know how to put out fires that have just started.
6. To know how to put out a fire in an automobile.
7. To know what communities are doing to prevent and combat fires.
8. To know what fire underwriters are doing to prevent fires.

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VII. SAFETY IN INDUSTRY OBJECTIVES

WHAT INDUSTRY IS DOING TO SAFEGUARD WORKERS

(Community civics—Problems of democracy)

1. To know the extent of industrial accidents and the economic loss in industry due to accidents.
2. To know what is being done in the industries in the community to reduce accidents.
3. To know the value of a safety program in accident prevention.
4. To know what industries in general have found to be good practice in reducing accidents.
5. To know the importance of the occupational diseases in industry.
6. To know what national and private organizations have been active in promoting safety in industry.

VIII. SAFETY IN TRANSPORTATION

MAKING TRANSPORTATION ON STEAM AND ELECTRIC RAILROADS SAFER

(Community civics and general science)

1. To know what is being done by steam and electric railroads to reduce accidents.
2. To know some of the safety methods being used by railroads.
3. To recognize the hazards of road-highway grade crossings.
4. To know the dangers of trespassing on the railroad right of way and "hopping" trains.
5. To know what is being done by national, State, and private agencies to safeguard land transportation.

SAFETY IN AVIATION

(General science—Physics)

1. To know the relative importance of different causes of aviation accidents.
2. To know of the increase in air transportation and the growth of the aviation industry.
3. To appreciate the increased safety of aviation and know some of the factors which have been contributory to this improvement.

SAFETY IN WATER TRANSPORTATION

(General science—Community civics)

1. To know the importance of water transportation.
2. To know the methods used in safeguarding water transportation.
3. To know what Federal agencies have been doing to safeguard water transportation.
4. To learn what is done in case of accident aboard ship.

III. The Selection and Organization of Activities For Developing Habits of Safety

A. Curriculum Units

Units of study in safety for the classroom program need to be selected and organized with care. Above all, their appeal to the pupil should be so compelling that it will insure his cooperation and whole-hearted response.

Both the minor and major projects have been used in organizing units of study in safety education. These have included a study of science, geography, civics, history, or literature. They have also provided for all the activities: Gesture, music, constructing, modeling, painting, drawing, speech, and writing.

Most of the courses of study in safety, analyzed on pages 27 and 28, give outlines of projects to be worked out in different grades. A few of these are given here as examples of this form of organization: A sand table project and a moving-picture machine, from the Los Angeles, Calif., course of study; a list of projects from Kansas City, Mo.; a series of activities in connection with the prevention of fire from Baltimore, Md., and for the junior high school a list of projects from the Connecticut State course of study on the subject of social science.

Suggestions for projects that are found in the Los Angeles, Calif., safety course of study.

A. Safety sand table.

For lower and upper grades the sand table may represent—

1. A street crossing in front of a hospital with appropriate signs.
2. A park showing lake, trees, flowers, etc., with safety signs.
3. Playground showing swings, teeters, slides, tennis, merry-go-round, miniature golf, and safety provisions for each activity.
4. A busy street showing policeman helping children to cross, with signs, "Stop," "Go," etc.
5. Safety town built on the sand table with many municipal safeguards represented.

B. Moving-picture machines are sometimes constructed by the pupils and reels of safety pictures are made for it by the children.

HOW TO MAKE A MOVING-PICTURE MACHINE

In our room the big children made the "moving-picture machine" for the smaller children. They reported as follows, orally:

1. First, you get a good strong box.
2. Next you make two rollers that will turn inside the box.
3. Then you make two handles to turn the rollers. You have to make holes in the box to push 'em through.
4. You have your long roll of paper ready and you fasten it tight to each roller.
5. Then you roll it all on to one roller except the end that's been fastened to the other.
6. The little ones draw their pictures about whatever you want.
7. Then they pin them onto the roll, but the pins must go crosswise.
8. One child tells the story as two more children unroll the pictures.
9. They can take off the pictures when they are through and pin on a new set.

In the Kansas City (Mo.) course in safety instruction and training, the following list of projects is given:

1. Make a set of safety readers for the first grade.
2. Make a safety scrapbook.
3. Keep a safety bulletin board.
4. Take a home-inspection blank to your parents and return it with blanks filled.
5. Have an "Accident report" column on the bulletin board.
6. Make a list of "do's" and "don't's" for smokers.
7. Make a list of devices that would be of use in preventing fire; in putting out a fire.
8. Clip items from the papers about people, especially children who have been injured and how the accident might have been prevented.
9. Find out what departments of your city do regular safety work.
10. Report all broken porches and railings in the homes of the pupils.
11. Ask parents and landlords to repair worn stair treads, porches, railings, and dangerous chimneys.
12. Report danger spots on streets, alleys, and sidewalks in the neighborhood. Discuss methods of removing these dangers.
13. Have a school safety exhibit.
14. Some interesting and helpful safety projects are to be found in "Elementary Lessons in Everyday English," by Bolenius:
 - (a) Holding a Clean-up Campaign, page 76.
 - (b) Forming a Clean-up Club, page 178.
 - (c) Starting a Health Crusade, page 224.
 - (d) A Crusade Against Destruction Foes, page 297.

15. For an interesting and carefully worked out project on "Safety First" as a civic duty, see Bolenius's "Advanced Lessons in Everyday English," pages 320-322.

16. A symposium, Banquet of Ideas, on "Safety First," is an admirable exercise for a seventh-grade class. See Bolenius's "The Teaching of Oral English." Chapter 6.

The following unit is taken from the recent course of study in safety education issued by the Department of Education in the city of Baltimore, Md.

GRADE 5 ✓

Source of interest: Poster on fire prevention. (National Safety Council, October, 1930)

I. Introduction.

A. Poster on bulletin board.

1. Children's attention directed to poster.
2. Discussion of fireman on poster.

B. Boy, whose father is a fireman, suggested a trip to the engine house.

C. Boy and student teacher made a trip to the fire-engine house to make arrangements for a visit.

II. Plans for trip.

A. How to cross street.

B. How to behave at fire-engine house.

III. Trip.

A. Met by fireman who explained—

1. Fire alarms—use and danger of misuse.
2. Pumping station.
3. Chemical engine (used in for oil fires).
4. How alarms come in.
5. How one company distinguishes its alarms from other alarms.

6. Fire.

- (a) Causes.
- (b) Dangers.
- (c) How to prevent fires.
- (d) What to do in case of fire.

7. What firemen do besides putting out fires.

8. Life of firemen while at the engine house.

- (a) Where they sleep.
- (b) Why they sleep there.
- (c) Clothes in which they sleep.
- (d) Position of pants and boots on floor while sleeping.

9. History of fire engine.

IV. Discussion of trip.

A. (See subject matter.)

B. Reading of best stories.

1. To firemen who visited schoolroom.
2. To two other classes in assembly.

V. Visit from fireman (was inspecting school and when discovered by children stayed to talk to them).

Several activities are listed for junior high schools in the Connecticut State Course of Study on Safety. Those given below are worked out in connection with social science.

A. Research studies.

1. The sanitary features of a factory in the community.
2. The safety devices in use at a local factory.
3. The fire-prevention devices suitable for a large factory.
4. The relation of alcohol to the efficiency and safety of a worker with machinery.
5. A safe and healthful factory—a theoretical development.

B. Observation visits.

The city or State health department laboratories.

The sewerage system plant.

The water purification plant.

The ice-cream manufacturing plant.

A model dairy farm.

A milk distributing center and bottling plant.

A model sanitary factory.

A sanitary bakery.

A city or State hospital.

The city incinerating plant.

A hotel kitchen.

A canning factory.

A cold-storage plant.

A State institution—Connecticut, 1927.

Topical Units and Seasonal Units

Complete units of work in safety for each grade are included in most of the elementary safety curricula and in two instances for the high school. The subject matter is organized around a topical unit, a seasonal unit, or a grade unit, sometimes partaking of one or two of these and sometimes of all three. Selected units of different types of organization are given here. Minneapolis gives the following:

TOPICAL UNITS

- A. How to prevent automobile accidents.
- B. How to prevent street car accidents.
- C. How to prevent railroad accidents.
- D. How to prevent falls.
- E. Causes of conflagrations. Burns and scalds and their prevention.
- F. How to prevent accidental drownings.
- G. Other dangers—
 - Firearms.
 - Throwing stones, using pea shooters, bean blowers, etc.
 - Poisoning.
 - Cuts and scratches.
 - Falling objects.
 - Injuries from animals.
 - Electric shock.
 - Carbon monoxide gas.—Minneapolis, 1930.

SEASONAL UNITS

Seven cities center their courses around the seasons of the year. The Newark, N. J., course follows the outline given below :

- September—Safety in the streets.
- October—Dangers from fire.
- November—Safeguarding health.
- December—Safety indoors.
- January—Snow and ice dangers.
- February—Dangers from gas and electricity.
- March—Safety in outdoor play.
- April—Safety in the school.
- May—Safety in gardens, parks, boats, and water.
- June—Vacation dangers.

GRADE UNITS

In thirteen cities the subject matter is organized around a grade unit with topical or seasonal units correlated with it. The plan used in Detroit, Mich., is as follows:

KINDERGARTEN

Accident prevention.—The children are first given training in listening and observing, in listening for instructions and obeying them. This is then applied to traffic.

Fire prevention.—Kindergarten classes visit the fire-engine house, gain a knowledge of the fireman's duties and what the children, themselves, can do to prevent fires. The danger of bonfires, grate

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fires, tampering with the gas stove, and playing with matches is stressed.

Protection.—Kindergarten teachers actually accompany their pupils to the school crossing, see that they cross in safety, and continually train them to stop at the curb, to look both ways before venturing into the street, and to cross only at the crosswalk.

FIRST GRADE

In this grade the safety training is substantially the same as that of the kindergarten, amplified to suit the growth of the pupils.

SECOND GRADE

Accident prevention.—The methods of heating, lighting, and cooking in each child's home; attendant dangers. Care necessary to avoid hurting oneself and other children; the dangers of using roller skates, coasters, and express wagons in the street. The dangers of fruit peelings on the sidewalk, fallen wires, carrying an umbrella carelessly, hitching on automobiles, wagons, street cars, begging for rides.

Talks by a uniformed police officer on safety in the street.

Fire prevention.—The duties of the fire marshal who inspects buildings for fire risk; how children can help him by inspecting their own homes for fire risks, as—

Matches kept within the reach of small children.

Careless smokers.

Towels or clothing hanging too near the fire.

Oily rags and dust mops.

Ashes in wooden receptacles.

Bonfires and burning leaves.

Christmas-tree candles and Fourth of July celebrations.

* THIRD GRADE

Accident prevention.—Explosives—gas, kerosene, celluloid, and their dangers.

The evolution of streets; importance of traffic regulations, of good highways.

Railroads—accidents at railroad crossings, taking short cuts across the railroad right-of-way, playing around tracks and cars, picking up wood or coal on tracks or where cars are being unloaded.

Fire prevention.—How to call the fire department. How to put out a fire that is starting. What to do if one's clothing catches on fire.

The following illustration from the recent course of study in safety education issued by the Department of Education of the city of Baltimore shows the method of planning units of study which emphasize safety.

TEACHER: Mrs. Anna C. Adler, Grade 5, School No. 64.
 SOURCE OF INTEREST: Geography course of study, Grade 6B. Problem: How the people of Baltimore use their lands and waterways near them. How the Maryland State Department of Forestry safeguards her trees from fires.

Subject matter	Procedure	Safety outcomes
<p>GEOGRAPHY—Study of—</p> <ol style="list-style-type: none"> 1. Forest areas of the United States. 2. Forest areas of Maryland. 3. Wooded areas of Maryland according to counties. 4. Causes of forest fires. 5. Seasons for forest fires. 6. Methods of preventing and fighting forest fires. <ol style="list-style-type: none"> (a) Work of rangers. (b) Signs used. 7. Report of Maryland Department of Forestry for 1928. <p>SCIENCE—Study of—</p> <ol style="list-style-type: none"> 1. Value of forests. 2. Species of trees found in Maryland forests. <p>CONSTRUCTIVE ENGLISH:</p> <ol style="list-style-type: none"> 1. Writing business letter to State forester. 2. Writing paragraphs, rhymes, and slogans for charts and booklets. 3. Talking on Work of a Ranger, Building a Camp Fire, etc. <p>LITERATURE AND READING:</p> <ol style="list-style-type: none"> 1. Poem, Trees, by Joyce Kilmer. 2. Stories from— <ol style="list-style-type: none"> (a) Elementary Science by Grades, pages 260-280. (b) Young & Field Reader, Book IV. (c) Scientific American Magazine, August, 1930. <p>ART:</p> <ol style="list-style-type: none"> 1. Lesson on block printing. 2. Charts to emphasize signs of warning used by forestry department, as: "Banish fires from the woods," "Save our timber." 3. Making a class booklet. 	<ol style="list-style-type: none"> 1. Preparation for excursion. 2. Excursion to a wooded area. 3. Collection of pictures to illustrate points discussed. 4. Charts made to emphasize— <ol style="list-style-type: none"> (a) Need of timber. (b) Results of a forest fire. (c) Suggestions for brush burning. 5. Maps made to emphasize— <ol style="list-style-type: none"> (a) Wooded areas of the United States. (b) Wooded areas of Maryland. 6. Graphs made to emphasize— <ol style="list-style-type: none"> (a) Wooded areas in Maryland according to counties. (b) Forest fires in Maryland in 1928 according to counties. 7. Rhymes made by class about care in forest. 8. Signs made to be used near wooded areas as— <ol style="list-style-type: none"> (a) "Protect our forests." (b) "Banish fires from the woods." 9. Paragraphs written for our charts and booklets. 10. Talks on work given. 11. Books and magazines read for information about forests and forest fires. 	<p>KNOWLEDGE:</p> <ol style="list-style-type: none"> 1. Dangers to our timber. 2. Care necessary in building and putting out a camp fire, in handling matches and cigarettes in our forests, in making a clearing in the woods. 3. Need for forest patrol. <p>HABITS:</p> <ol style="list-style-type: none"> 1. Exercise care while in woods. 2. Put out all camp fires before leaving woods. <p>ATTITUDES:</p> <ol style="list-style-type: none"> 1. Appreciation of the value of forests. 2. Desire to prevent forest fires. 3. Gratitude for the shade of trees during the hot summer days.

B. Correlation of Safety With Other Subjects

Most of the courses analyzed in this bulletin suggest some form of correlation with other subjects of study. Oral language and informal discussions in the lower grades and formal debates, safety plans, themes, and compositions in the upper grades are correlated with oral and written language lessons. Early reading lessons based upon safety topics in the lower grades and correlation with civics and physics in the upper are most often mentioned.

Slogans and original poems on safety also form a part of the language program. Often arithmetic lessons are based upon safety data, but these may seem rather far-fetched and often do not become an integral part of the curriculum, except perhaps in the use of the graph. Drawing seems to play an important part in every safety program from the early representation in paper-cutting to the finished poster.

The outlines in safety correlated with geography, history, hygiene, and arithmetic as found in the Worcester, Mass., course of study are given here:

Geography for grade 4.

In the development of industries, we find a large field for discussion in the danger incident to the work and methods used to avert dangers and preserve life. Illustrated, Lumbering, mining, farming, etc.

Type outline in lumbering, illustrating dangers of the occupation.

- (a) Dangers and diseases peculiar to the trade.
- (b) Falling trees.
- (c) Slip of a sharp axe.
- (d) Headlong fall over unexpected obstacles.
- (e) Careless step on log raft.
- (f) Careless use of fire.
- (g) Disregard of minor injuries.
- (h) Careless exposure.

History for grade 4.

1. Type lesson on Benjamin Franklin and safety.

- (a) The kite, as a result, the lightning rod.
- (b) Helped to build the first hospital.
- (c) Street lighting.
- (d) Franklin stove.
- (e) Police department.
- (f) Fire department.

History for grade 4—Continued.

1. Type lesson on Benjamin Franklin and safety—Continued.
 - (g) Established academy.
 - (h) Street paving.
 - (i) Getting aid from England at the time of the Revolution.
2. Safety conditions in the time of the Pilgrims compared with those of the present day.
 - (a) Leaving England. Leaking Speedwell; to-day—ship protection.
 - (b) Mayflower dark, cold, and crowded, illness: to-day—ships large, airy, warm.
 - (c) Mayflower helpless in severe storms; to-day—lighthouses, buoys, charts, maps, and radio keep ships on course.
 - (d) In landing, small boats used; to-day—docking of boats.
 - (e) On landing, no homes meant great suffering, danger of exposure, wild beasts, and Indians; to-day—dangers eliminated.
 - (f) Lack of food, snow and ice so deep fishing and hunting impossible; to-day—plenty of food, convenience of stores.
 - (g) Desperate illness from cold and hunger; to-day—medical attendance, clinics, school nurses, etc.
 - (h) Travel, Pilgrims either walked or sailed; to-day—modes of travel numerous and safe.

Opportunities for safety education in the elementary school curriculum are stressed in the recent Baltimore course of study in safety education. The following material may be found in the science course of study for grades 4, 5, and 6.

*Science.**Water.*

How drinking water is made safe for use (Montebello Filtration Plant).

Realization that clear water is not always pure water.

Realization of necessity for reserve water supply.

Herring Gull.

Value of gull to man; acts as scavenger.

Man's protection of gulls; law against killing them.

Poison Ivy.

Dangers of plant.

Recognition of plant.

Remedies to use.

Screech owl.

Value of bird to man; rodent control.

Need for protection of bird.

*Science—Continued.**Turkey buzzard.*

Value of bird to man: serving as a scavenger.

Need for protection by man.

Protective coloration.

Colors of plants, birds, and animals serve a useful purpose, i. e., protection from danger.

Man from his study of nature has learned to use her "tricks" to protect himself. During the World War use of protective coloration was evidenced in the khaki uniforms, camouflage of ships, tanks, etc.

The air.

Relation of air to fire and smoke.

Prevention of fires.

How fire extinguisher is made.

Method of extinguishing a fire.

Prevention of forest fires.

Method of fighting forest fires.

Electricity.

Study of fuse as safeguard against fire; "short circuits," need for insulation.

The course in safety education in the schools of Newark gives the following suggestions:

Games.—Children who go to school for the first time have the new experience of the walk to and from school unaccompanied by an older person. They must learn to take care of themselves in traffic, to look upon the traffic officer as their friend and to be able to give their name, address, and telephone number in case of need. Traffic games which will teach the necessary rules of the road for pedestrians and vehicles may be played. (1) A street-crossing game, (2) The lost child game, (3) A game of "What I can do to help make my home safe, comfortable, and attractive."

Dramatization.—From games to dramatization is only a step. Accident prevention offers an unlimited number of topics suitable for dramatization and adapted to a variety of dramatic forms. (1) Children may act out stories read or told by themselves or by the teacher. (2) The duties of public servants, such as policemen, the fireman, the street cleaner, the public-health nurse, the fire ranger, the lighthouse keeper, and the Coast Guard may be studied and dramatized.

Art.—Much valuable instruction may be given through the medium of drawings, posters, and models which will illustrate facts and situations relating to safety and accident prevention. (1) Familiar signs may be lettered, illustrated, and their meaning discussed with the reasons back of them, such as "Railroad crossing—Look out for

the engine," "School—Slow down," "Hospital street," "Wait until the car stops," "Don't talk to the motorman," "Keep to the right."

(2) Scrapbooks illustrating the development of certain inventions, such as vehicles or the means of lighting and heating, may be built up and prove a valuable means of acquiring a stock of general information. (3) A bulletin board for clippings and original work can be a source of great interest not only to the children who contribute to it but to all who see it.

Language.—There is a wealth of material in the field of safety for work in the various branches of language. Conversation, story-telling, reading, oral and written language, debates, the writing of slogans, rules, letters, verses, and plays, are all excellently adapted to safety instruction. (1) The younger children may tell about accidents which have happened to them or which they know about, discussing why these accidents happened, what would have prevented them, and how much more worth while it would have been to save the time and pain they cost for something more pleasant. (2) They may discuss safe and unsafe places to play and tell why streets, railroad tracks, lumberyards, excavations, and fire escapes are not suitable places for children. (3) The older children may work out a series of questions on fire hazards to apply to their homes. (4) Two-minute speeches not only give expression to a safety idea but teach the children to think on their feet. (5) Children may write safety slogans, adopting one or two at a time as class mottoes to be acted upon in every possible way. (6) They may write verses to some well-known tune so that the best may be learned and sung by the whole school.

Nature study.—An approach to the whole subject of safety and conservation may be made through nature study. The struggle for existence among plants and animals foreshadows the same among men. The forces which we have to contend with are different to-day but the struggle goes on. There are many forms of life which have not survived the battle and others which are disappearing under our very eyes. (1) Children will be fascinated by the study of safety devices in nature—the protective coloring of tree toads, moths, rabbits, and many kinds of birds, the turtle's strong house into which he can withdraw if enemies are about, the sensitive whiskers of the cat, the keen scent of the dog, the swift legs of the deer, the quills of the porcupine, the skunk's effective weapon for defense. (2) All wild animals will fight to protect their young and nearly every animal has some characteristic quality or habit which protects him to a greater or less extent from the special dangers which he is likely to meet.

History.—The time is coming, although it has by no means yet arrived, when history will cease to be taught merely as a succession of military campaigns. The development of the thought, customs, and social and economic life and relationships of the race is an infinitely

more vital conception of history than the military one. There is a vast amount of material here which has a direct application to the safety movement. (1) What were the dangers to prehistoric man? (2) How did he meet them? (3) Have we parallel experiences to-day? (4) How did people live in the first few years of our city? (5) What kind of houses did they have? (6) What did they do in case of fire? (7) What was the traffic situation?

Civics.—Nearly all the subject matter of safety and accident prevention comes under the head of civics. It is interesting to analyze the different departments of a city government and see how many are really organized for the protection of life, health, and property. A study of the agencies of the local government with which children come into personal contact may be begun even in the kindergarten, leading by suitable stages to a study of all government agencies for safety, local, State, and Federal.

Physical training.—All training which develops the senses and makes for a healthy, alert, vigorous body is safety education, for many accidents are the result of physical defects or lack of muscular control and coordination. An awkward, cautious child is more apt to get hurt than the child who apparently takes chances but whose senses are keen and body responsive and under perfect control. Because of this, all physical culture is a part of safety just as it is a part of health.

Arithmetic.—Through the use of numbers obtained from statistical reports dealing with accidents and their prevention, many interesting arithmetic lessons may be planned. Not only will the arithmetical principles involved become vitalized but the lessons in safety will gain in meaning.

Statistics which are essential for such lessons may be obtained from the following: (1) Newark (any city) Safety Council, (2) National Safety Council, (3) Public Service Corporation (department of safety, (4) Newark (any city) Department of Public Safety.

Geography.—The various phases of human relationships, studies in geography, offer many opportunities for safety education. Lessons concerning industries and transportation probably present the best possibilities but, besides these, geography provides innumerable opportunities for the development of safety ideals.

C. Plays and Other Forms of Dramatic Activities

Safety games and the dramatization of safety songs and stories are frequently mentioned as schoolroom safety activities. In the kindergarten and primary grades traffic games are played and safety habits in connection with crossing the street are inculcated. Occasionally a good safety play is produced by some author but generally the plays

and games initiated by the pupils themselves have a greater effect because they apply directly to the child's own experience.

The Massachusetts course of study in safety education for the elementary and junior high schools for 1931 gives a safety assembly program in which a play is enacted which has been planned and written by three sixth-grade classes. The teaching procedure is given below:

A. Planning and writing the play.

In one sixth grade a child recalled a health program given a year or two before. The program had included a court trial. The suggestion was made that the trial of a case involving an automobile accident be worked out in a similar manner. The possible ways in which children are injured by automobiles were discussed. An accident, caused by the common violation of the rule against roller skating in the street, was decided upon as the cause for the trial.

Several children who had been to court volunteered information concerning court procedure. Children were selected to go to the public library and select books containing trial scenes and other information about the courts. A trial scene, written by a class in Louisville, Ky., was found very helpful. Parts were read aloud by various members of the class to familiarize themselves with the form of a trial.

Arrangements were made by telephone with officers of the Springfield court to have 25 members of the class see an accident case being tried.

As the children had already started working out their case before they visited court, they were in an eager, critical frame of mind, and returned with an immense amount of detailed information concerning the arrangement of the court, the duties and deportment of the officers, and principals in the case, and the properties necessary for them to depict a true Massachusetts court.

Differences between the Massachusetts and Kentucky courts called for some revision in their scene.

In discussing the scene, the children decided to use a shadow picture representation of the accident instead of a diagram such as is used in court.

Another sixth grade cooperated here by making the shadow pictures and manipulating the figures. The first scene, in shadow, shows a boy roller skating in the street. He trips over his hockey stick, falls, and is struck by an oncoming automobile. A second scene shows him being carried to the hospital by the driver.

B. The play—The Trial of Billy Brown.

A prologue preceded the courtroom scene. Several boys were heard in a conversation scoffing at safety measures. They were interrupted

by the arrival of a newsboy with an extra edition telling of the accident to Billy Brown.

Time: A morning in March, 1930.

Scene: A courtroom in Springfield, Mass.

Characters (in order of appearance):

Sheriff, who announces the judge.

Crier, who opens the court.

Judge, who presides at the trial.

Clerk, who calls the cases, impanels jurors, and administers oath to witnesses.

Jurors (12) headed by the foreman.

Mr. Courtney, lawyer for plaintiff, states his case to the jury; later he questions witnesses and sums up his case.

Mr. Courtney's witnesses:

1. Nurse Waite, who testifies to the arrival of Billy at the hospital in an injured condition on the day of the accident.
2. Doctor Brunn, who testifies to the seriousness of Billy's condition.
3. Nancy Reed, a schoolmate of Billy's, who saw the accident, and admits that Billy, unlike most of the class, is not a safety crusader.
4. Billy Brown (on crutches), who testifies to being struck by the automobile and admits that he did not leave the road when the horn was sounded.
5. Mr. Brown, the plaintiff, who testifies concerning his inability to meet the hospital bills easily, and admits that Billy has been careless before.

Mr. Winter's witnesses:

1. Officer Gardy, who testifies to having trouble with Billy about ignoring safety rules.
2. Mr. Mahoney, a garage mechanic, who testifies to the good condition of the defendant's brakes.
3. Miss Mack, Billy's teacher, who testifies to the teaching of safety in school.
4. Mr. Johnson, a photographer, who presents the shadow picture of the accident as he saw it.
5. Mr. Grant, the defendant, who testifies to the precautions he took, and his good record as a driver.

SAFETY PLAYS

These plays, listed in Safety Education, by Idabelle Stevenson, A. S., Barnes & Co., New York, N. Y., may be purchased from Education Division, National Safety Council, 1 Park Avenue, New York, N. Y.

For primary grades.—Little lost aster.²⁰ Danger of running away.

For elementary grades.—Bruin's inn,²⁰ fire prevention. The cracker conspiracy,²⁰ Fourth-of-July safety. How knowledge driveth away fear, a morality play showing that fears in their place are normal and protective; suitable to be given before adult audience by children. Bill's Christmas fright, Christmas play based on dream of boy who will not learn to use his playthings carefully. Bill's day in court, trial of a boy who has disobeyed traffic regulations.

For junior high schools.—The lost camping place—fire prevention and forest conservation. Silver shoes, dangers of heedless coasting. The mystery box, a narrowly averted railroad accident.

For senior high schools.—Flying colors, dramatic episode of the part safety plays in a city election. Sixty miles an hour, reckless driving and its results.

OTHER PLAYS

For elementary grades.—Home safety and fire prevention.

Beard, Harriet E. Safety first for school and home. Macmillan Co.

The gift of fire—fire prevention. Present status of safety education. National Society for the Study of Education. Public School Publishing Co., 143 pages.

The trial of fire—fire prevention. National Board of Fire Underwriters, New York, N. Y.

D. Readings

Carefully selected reading material will help to develop habits of safety, for the story is one of the potent influences that shape the child's thought and affect his behavior. Many lessons may be learned from the reading of good safety stories. Supplementary reading books are replete with such literature which is easily available in most school libraries for the teacher's use.

²⁰ Also in the collection, "Little plays for little people." A. P. Sanford and Robert Haven Schauffler. New York, Dodd, Mead & Co., 1930.

The Baltimore course of study in safety education for elementary grades, 1930, gives a list of 450 such stories selected from 36 school readers and arranged by grades. The Worcester, Mass., course of study in safety education gives a similar list, as do many others. Bibliographies of stories which are used in safety lessons are appended to many courses, taken generally from books of famous deeds depicting heroes and heroism. A reading list from the course in safety used in the city of Baltimore, Md., is given here by grades and topics.

Grade I. Topic: Study of the community.

Reading: "Jimmie Sliderlegs," by Dr. Henry Hoffman; "The safety hill of health," by Lummis and Shame; "Stone's silent reader," Grade I, page 67; "Fire department," a picture book published by M. A. Donohue & Co.

Grade II. Topic: The farm.

Reading: "The story of milk," Zirbes and Wesley; Stories of the farm in various supplementary readers; Picture books of the farm brought from home; Stories of how plants, insects, animals, and mankind prepare for winter; Reference books on science used for identifying poison ivy, poison sumach, mushrooms, etc.

Grade III. 1. Topic: Transportation. A unit on transportation, safety in olden times, on land, at sea, in air.

Suggested stories: A. Story of the first steam engine (race between Tom Thumb and horse-drawn vehicle); B. Original stories of trip in automobile (attached); C. Train stories in Marjorie Hardy's new stories and best stories; D. Ship stories telling about means of safety; E. Stories of famous flights—Lindbergh, Byrd, Coste, and ways in which these men tried to prevent accidents.

2. Topic: Foods—the market.

Reading: "First lessons in geography," by Knowlton; "Best stories," Book III; "Bobby and Betty with the workers," by Dopp; "Home folks," by Russell Smith; "Child story readers," by Freeman, Book II.

3. Topic: The Indians.

Reading: "The friendly Indians," Storyland, page 73; "Indian children," Pathway to reading, Book II, page 26; "Indian travel," Best stories, page 60; "What Squanto taught the Pilgrims," Best stories, page 36; "Indian stories," Child's own reader, page 34; "The first fire," Storyland, page 67.

Grade IV. Topic: Conservation of forests.

Problem: How is the United States trying to preserve its forests?

Reading: "Open doors to science," by Caldwell and Meler, pages 182-183; "Child story reader," fifth grade, pages 25-64; Booklets—Report of State department of forestry for 1927, page 23, and for 1928, page 21.

Grade V. Topic: Injurious insects, the Japanese beetle.

Reading available information on the beetle, "Our insect friends and foes," by DuPuy, Chapter XX; United States Department of Agriculture, Circular No. 363; Chart from Japanese beetle laboratory, Moorestown, N. J.

Problem: How the Maryland State department of forestry safeguards her trees from fires.

Literature and reading: 1. Poem, "Trees," by Joyce Kilmer; 2. (a) Stories from "Elementary science by grades," pages 260-280; (b) "Young and Field reader," Book IV; (c) "Scientific American magazine," August, 1930.

Grade VI. 1. Topic: Halloween.

Problem: Dangerous pranks on Halloween.

Reading: Stone's silent reader, Book VI, "Halloween customs and how they have arisen"; Bolenius reader, Book VI, "How the witches have been punished for Halloween"; Walker-Parkman. Study reader, Book VI, "Day of judgment."

2. Topic: Constructing a "safety" house.

Reading: "Pathway to reading," Book VI, pages 121, 139; Safety education magazine; Stone's silent reading, Book VI, page 254; Lewis and Rowland's silent reader, Book VI, page 236; page 259; Study reader, Book VI, pages 267-281; "Health," by Turner and Collins, page 193.

A short bibliography of books for pupils to read is appended here. Some of these are supplementary reading material for classroom programs and some are general references for library reading periods.

Materials for Pupils

BOOKS TO READ

BOOTH, STELLA. Jimmie and the junior safety council. Yonkers, N. Y., World Book Co., 1928. \$1.20.

Supplementary reader for the intermediate grades based on junior safety council activities.

BRINKERHOFF, GEORGE I., and ROWE, CELENA. Safety first stories. New York, Longmans, Green & Co., 1929. 88 cents.

A silent reader. Stories deal with everyday situations involving safety.

FOX, EDITH. Roller bears and the sawfay tribe. New York, The Macmillan Co., 1928. 96 cents.

Adventures of the sawfay tribe and anger trails (streets) and the safety (sidewalks) where members of the tribe escape the "bears" (tracks) and "savages" (touring cars).

MARTIN, FRANK E., and DAVIS, GEORGE M. Firebrands. Boston, Little, Brown & Co., 1924.

A supplementary reader on fire prevention.

ROBERTS, MILDRED MILES. Safety town stories. New York and Chicago, Lyons & Carnahan, 1930. Illustrated.

Safety reader for little folks.

E. School Safety Organizations

In 16 cities some safety organization is in operation, and sometimes three or four such organizations are at work in one school. These are listed as school safety committees, junior safety councils, safety scouts, safety courts, patrol squads, traffic squads, first-aid units, and fair-play groups.

JUNIOR SAFETY COUNCIL

As the junior safety council of the National Safety Council, New York, represents in a general way the work of the other organizations, a description of its functions is reported here from the Omaha, Nebr., course of study: Outline of safety instruction and suggestions for junior safety council organizations.

Organization plans.—If we are to reach the objectives we have set for this work, some form of organization will be necessary. Pupils must have the opportunity to do safety work as well as to study it in the classroom; this can only come through some organization plan that will bring children into active participation in the work. Organization should be modified to meet any peculiar situation.

Membership.—There shall be two classes of membership, active and associate.

(a) Active membership shall consist of two representatives from each fourth, fifth, sixth, and seventh grade room, elected semiannually by the pupils of the room. Where so desired, pupils can be selected from the second and third grades; also where school is small a greater number should be taken from each room.

(b) Associate membership shall be open to any other pupils in the fourth, fifth, sixth, and seventh grades who may give to the council

adequate proof that he lives up to the rules as hereinafter provided for. Here again the second and third grades may be included. Members should be required to fulfill the requirements anew each year before being admitted to associate membership.

(c) All other pupils in the schools will participate in class-room activities and vote on all matters referred back to the room.

Officers.—(a) Officers shall consist of a president, vice president, secretary, and captain of patrols.

(b) The first three of these officers shall be elected semiannually by the council from the list of active members.

(c) The captain of patrol shall be appointed by the president of the council in cooperation with the principal.

(d) Election shall be held semiannually, the first in September and the second in January.

Membership requirements.—Any pupil may be admitted to associate membership when he has—

(a) Learned the safety pledge.

(b) Observed the safety code as listed, for three weeks.

(c) Reported in writing at least two unsafe conditions in the neighborhood of the school.

(d) Helped smaller children or elderly persons in dangerous situations and has reported same in writing.

Insignia.—(a) Active members shall be provided with a junior safety council button by the Omaha Safety Council.

(b) Patrols shall be provided with a patrol button, also to be supplied by the Omaha Safety Council.

(c) These buttons may be worn at all times and shall constitute a badge of authority amongst the children of the school in regard to warnings against unsafe practices.

(d) Associate members shall be supplied with an associate membership button by the Omaha Safety Council.

(e) Active members or associate members may have their buttons taken away from them by the principal for reported violation of any part of the safety code or pledge. Each member is to be responsible for his button and is not to be provided with another in case of loss except in payment of the cost.^a

Activities.—The following are among the suggested activities which can be carried on by the membership of the council. For these activities both active and associate members should be used. It will be found that many of these activities will be governed by the committees heretofore referred to.

(a) Guarding stairways in the schools at all times when desired by the principal.

(b) Acting as patrols on playgrounds, guarding against dangerous play.

^a Cost of buttons: Patrol, 10 cents; active, 6 cents; associate, 3 cents.

- (c) Acting as patrols at dangerous corners (standing at curb and not in the street), assisting children to cross in orderly fashion.
- (d) Reporting hazards in the vicinity of school.
- (e) Aiding the principal in any way at any time as desired.
- (f) Active members of council acting as a court for the trial of those pupils guilty of violation of safety regulations. This has been found extremely effective.

Pledge of the junior safety council.—It will be necessary for every active and associate member to learn the Safety Pledge, which pledge should be recited at every council meeting:

I will work for the safety of others as I would want them to work for my safety.

I will try to be careful all the time, everywhere.

I will not take unnecessary chances of getting hurt, and will warn others against doing so.

I will do my part to help reduce the number of accidents this year.

All this I will do for the sake of humanity and the honor of my school.

School patrol.—Undoubtedly the school patrol is in a large measure responsible for the safety of school children on the street. Doctor Stack, in his study of Safety Education in the Secondary Schools, reports that at the present time there is no satisfactory method of measuring the value of patrols and councils in reducing accidents. "We only know," says Doctor Stack, "that there are very rarely accidents at crossings where patrols are on duty."

In 15 of the 20 city school systems included on pages 27 and 28 the school patrol is in operation. These patrols are organized in various ways. In some cities the patrols are organized under the direction of the department of physical education; other cities such as Detroit have a special supervisor of safety; still others are organized under the direction of the local safety council, the automobile club, or the police department. In the majority of schools studied the patrols are selected by principals or sponsors and meet weekly or biweekly. The standard rules for school-boy patrols are as follows:

Standard rules for school-boy patrols.—These rules for the operation of school-boy patrols have been adopted by a

joint committee of the American Automobile Association, the National Safety Council, and the National Congress of Parents and Teachers. They are based on experience and careful observation of patrol operation in approximately 1,000 cities, in several of which the work has been carried on for from 5 to 10 years with outstanding success in the practical elimination of accidents and the improvement of morale. The rules are also in harmony with the best legal advice and court decisions on questions of authority and responsibility. These rules, therefore, are recommended to all school authorities and to all bodies sponsoring patrols. The rules do not cover the operation of other types of safety patrols in school buildings, on playgrounds, at coasting hills, or in connection with school busses.

1. *Function.*—The function of the school-boy patrol is to instruct, direct, and control the members of the student body in crossing the streets at or near schools. Patrols should not be charged with the responsibility of directing vehicular traffic, nor be allowed to do so, other than signalling to a motorist who approaches the crossing after the student pedestrians have left the curb.

2. *Selection.*—Patrol members should ordinarily be appointed by the principal or by the officers and faculty adviser of the authorized student organization. These members are ordinarily boys, but girls may be appointed in certain cases. They should be selected from the seventh and eighth grades, or from the sixth grade if that is the highest in the school. Patrol members should be selected for leadership and reliability. Their service should be voluntary and approved by parent or guardian. Officers should serve for at least one full term; other members may be changed at intervals of about six weeks. Any officer or member should be removed for cause.

3. *Size and officers.*—The size of the patrol varies with street conditions and size of the school. The average patrol has 10 or 12 members including officers. Every patrol should have a captain. Lieutenants and sometimes sergeants may also be appointed.

4. *Instruction and supervision.*—These are essential if the patrol is to be efficient and permanent. In general the best results have been obtained where the patrols operate under immediate instruction and supervision of police officers detailed for the purpose and acting under general supervision of the school authority and the sponsoring body which may be the motor club, safety council, or other civic body. New members of the patrol should, where practicable, serve with and under the guidance of experienced members for at least a week.

5. *Insignia.*—The standard insignia for patrol members is the white Sam Browne belt made of 2-inch material. This must be worn at all times while on duty. Special badges for officers may be worn on the left breast or left arm. Auxiliary equipment, if any, should be standard throughout the community.

6. *Flags and whistles.*—Patrol members while on duty shall not have in their possession any signs, signals, flags, sticks, or whistles.

7. *Position and procedure.*—The patrol member should stand on the curb, not in the street, and hold back the children until he sees a lull in the traffic. When this occurs he motions to the children to cross the street in a group. He still keeps his position on the curb, except that if his view of traffic is obstructed by parked cars or otherwise, he may step into the street a sufficient distance to obtain a clear view, but not more than three paces; after the children have crossed he returns to his position on the curb.

Where the street is wide or the traffic heavy, there should be two patrol boys at the crossing. One operates as described in the preceding paragraph, on the side from which the children are coming. The other operates similarly on the opposite curb, giving attention to possible traffic approaching on that side and assisting the group of children to reach that curb in safety.

8. *Hours of duty.*—The patrol members should reach their posts 10 or 15 minutes before the opening of school in the morning and at noon and should remain until after the last bell. At noon and afternoon dismissal they leave their classes two or three minutes before dismissal bell and remain on duty 10 or 15 minutes while children are leaving. If any classes are dismissed earlier than others, it is essential that patrols be on duty at all times while children are crossing the streets.

9. *Relation to police officers.*—At intersections when traffic is controlled by an officer or a traffic signal or both, the patrols will direct the crossing of the children in conformity with the directions of the signals or the officer.

At intersections without regular traffic control, the traffic may be sufficiently heavy to require the special assignment of a police officer at the times when children are going to and from school. When this is done, it is recommended that the police officer should not stand in the intersection, but at the curb, and when a group of children has been collected, escort them across the street, stopping vehicular traffic for the purpose if necessary. The function of the patrol boys is then to hold the children at the curb until the police officer is ready to take them across.

F. Other Activities

The following safety test is taken from Safety Education in the Elementary Schools, by Ruth Streitz, of the University of Cincinnati:

You will find listed here some tests to see if you remember some of the things you have been taught about safety. You will be given a few minutes to answer all the questions. Read each one through and put a mark like this V before the one that you think best answers the question.

1. In crossing the street one should—
 - (a) Look up, go to the middle of the street, then look down.
 - (b) Look left, go to the middle of the street, then look right.
 - (c) Look to see if others are crossing.
2. Fire engines should be given the right of way because—
 - (a) They are too heavy to turn out in traffic.
 - (b) They are going too fast to stop.
 - (c) They must reach their destination quickly.
3. The quickest and best way to call the fire department is to—
 - (a) Run and shout.
 - (b) Ring a fire alarm.
 - (c) Telephone.
4. We should stay away from houses where a sign says—
 - (a) Throw no rubbish.
 - (b) Mall.
 - (c) Smallpox.
5. If a fire broke out in school we would—
 - (a) ~~March out~~ quickly.
 - (b) Rush out quickly.
 - (c) Run to the nearest fire alarm box.
6. Ashes from a stove or furnace should be put in a—
 - (a) Wooden box.
 - (b) Cardboard box.
 - (c) Metal box.
7. In case hot grease is on fire one should—
 - (a) Throw on water.
 - (b) Smother with rug or blanket.
 - (c) Throw on sand, salt, or flour.
8. Firemen are sent to theaters before every performance to see that—
 - (a) The curtain is in condition to go up.
 - (b) That required regulations have been fulfilled.
 - (c) That the doors are ready to open.
9. Floors under stoves should have metal sheeting because—
 - (a) It is strong enough to hold up the stove.
 - (b) Protects the flooring.
 - (c) Is easy to keep clean.
10. Oily rags should be kept in—
 - (a) Tin cans.
 - (b) Boxes.
 - (c) Trash barrels.

11. The best sign for a railroad crossing is—
 - (a) Look out for the cars.
 - (b) Railroad crossing.
 - (c) Stop, look, listen.
12. We should cross the street—
 - (a) In front of our home.
 - (b) In the middle of the block.
 - (c) At the crossing.
13. Garbage should be put in—
 - (a) Large metal cans with covers.
 - (b) Cardboard boxes that can be destroyed.
 - (c) Open cans.
14. Near a water hydrant a sign says—
 - (a) Park here.
 - (b) Do not park here.
 - (c) Keep moving.
15. A red light means—
 - (a) Go ahead.
 - (b) Danger.
 - (c) Hurry.
16. The best way to clean streets is by—
 - (a) Sprinkling.
 - (b) Sweeping.
 - (c) Washing.
17. One should not look for a gas leak with a lighted match because—
 - (a) The match will not give sufficient light.
 - (b) The match will burn out too quickly.
 - (c) It might cause an explosion.
18. Bonfires should—
 - (a) Be made on a calm day.
 - (b) Should never be made.
 - (c) Be made on a stormy day.

A copy of part 2 of Doctor Stack's test is given below: ²²

Read the following directions: Below there is a series of questions. If you believe the answer should be "Yes," underline the "Yes" in the column at the side. If you think the answer should be "No," draw a line under the "No." Do not hurry. Be sure you are right.

1. If your clothes catch on fire, is it best to run outdoors?— Yes. No.
2. Is it safe to hold small firecrackers in the hand?— Yes. No.

²² Stack, Herbert J. National Tests in Safety Education. National Bureau of Casualty and Surety Underwriters, New York City.

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3. When walking along country highways should you walk Yes. No.
on the left side?
4. Does the individual have a right to disregard quaran- Yes. No.
tine regulations if they seem too strict and interfere
with his liberty?
5. Is the Shaefer system of artificial resuscitation the Yes. No.
best for reviving persons who have been almost
drowned?
6. Should the gas oven door be closed before the gas is Yes. No.
lighted?
7. Do fire underwriters insist on many electrical safe- Yes. No.
guards in house wiring so that the electrical com-
panies may sell more products?
8. Are school safety patrols useful in reducing accidents? Yes. No.
9. If you know how to drive a motor vehicle should you Yes. No.
drive a car if the State law does not permit it?
10. Is it all right to go swimming in a lake alone if you are Yes. No.
a good swimmer?
11. Is the safest place in a thunder storm under a tree?---- Yes. No.
12. Is the school fire drill a waste of time?----- Yes. No.
13. Is it all right to play with a gun if you think it isn't Yes. No.
loaded?
14. Is there danger of spontaneous combustion of dry hay Yes. No.
in barns?
15. Do uniform traffic codes tend to reduce accidents?-- Yes. No.
16. Are automobile accidents increasing in the United Yes. No.
States?
17. Should one look for gas leaks in the cellar with Yes. No.
matches?
18. May thermometers be used on ocean liners to inform Yes. No.
the navigators of near-by icebergs?
19. May a person driving a car be held responsible for Yes. No.
injuries which he may cause to a pedestrian crossing
the street?
20. Should radio aerals be placed under high-tension elec- Yes. No.
tric light wires?
21. Are aviation beacon lights operated by the Department Yes. No.
of Commerce?
22. Are air brakes used on trolley cars?----- Yes. No.
23. Is the number of accidents on railways increasing?-- Yes. No.
24. Is fire the most important cause of airplane accidents? Yes. No.
25. Is it advisable to take out fire insurance?----- Yes. No.
26. Are all passenger-carrying steamships inspected regu- Yes. No.
larly?

27. Is faulty construction the cause of most automobile accidents? Yes. No.
28. In the Schaefer method of artificial respiration is the upstroke slow? Yes. No.
29. Are cats used to show the presence of monoxide gas in mines? Yes. No.
30. Is it advisable to use rubber tubing for gas stoves?-- Yes. No.

IV. The Administration of Safety Programs

The School Program

The report of the subcommittee on safety education of the White House Conference outlines the following procedures for the administration of a safety program.

There is considerable variation in the methods of administering safety education in a school system. A number of factors have contributed to this variation, such as the size of the system, the number and kinds of administrative officers, and the cooperation of outside organizations working with the schools. As in the case of many of the newer subjects, there is some question as to where safety belongs and by whom it should be supervised.

1. The superintendent or some other administrative officer designated by him should be the general supervisor of safety. In some cities the supervisor will be the assistant superintendent or one of the general supervisors. In others, safety is under the supervision of the health education and physical education departments. In several cities we find special supervisors of safety education. It is essential, in any case, that some administrator be responsible for the proper carrying out of safety activities.

2. The responsibility for supervision in each school building should be placed upon the principal. He, in turn, may appoint an assistant or a teacher as building supervisor, but the principal should be the responsible officer. The building supervisor usually acts as advisor for patrols and councils and is responsible for the safety activities of the school.

3. Provisions for safety in and about school buildings. In many States there are special codes regarding building construction. Many cities also have regulations relative to the construction of school buildings. It is essential that provisions should be made for the following:

4. It is desirable for each city to have its own course of study in safety education. In recent years there has been a wave of interest

in curriculum building. Denver includes safety education in the health education and civics courses of study. Kansas City, St. Louis, Worcester, Springfield (Mass.), Des Moines, Newark, and other cities have separate courses of study providing for the teaching of safety in a number of subjects. A large number of cities use automobile club or safety council lesson outlines but have no regular syllabus of their own. Although the material offered in these lesson outlines may be highly desirable, such outlines are aids to teachers and should not take the place of courses of study.

5. Some provisions should be made by cities for the purchase of readers and other safety materials for the schools.

6. Efforts should be made to secure the cooperation of other city departments that are doing safety work. The police, health, and fire departments in most cities have materials and facilities available for assisting schools.

7. Special weeks or special days may be set aside by the schools for stressing some phase of safety.

8. Superintendents of schools may also secure the cooperation of motor clubs, safety councils, chambers of commerce, and other local organizations interested in safety.

9. It is advisable that cities use some kind of accident reporting system so that the accident experience may be made the basis of special stress in the curriculum.²⁴

The organization of the safety program, according to Doctor Scheib,²⁴ supervisor of safety education in the State of Massachusetts, naturally falls under four lines of procedure: (1) General preparation, (2) phases of safety education, (3) activities, and (4) curriculum. A detailed outline of the work in safety education in the State of Massachusetts follows:

Outline

I. General preparation.

- A. Subscribe to Safety Education, published monthly by the Educational Division of the National Safety Council, 1 Park Avenue, New York. \$1. Other material as posters and plays may also be obtained from this source.
- B. Organize safety patrol and junior safety councils.
- C. Use organized play at recess.
- D. Have frequent fire drills.
- E. Conduct a "No accident campaign."

²⁴ White House Conference on Child Health and Protection. Section III-C. Committee on the School Child. Report of Subcommittee on Safety Education.

²⁵ A Safety Exposition or Suggestive Safety Program for the Elementary Schools, Commonwealth of Massachusetts, Department of Education. Ida E. Scheib, supervisor of safety education.

I. General preparation—Continued.

- F. Ask each teacher to have at least one "safety day" a month when each lesson is based on some phase of safety.
- G. Hold several safety assemblies.
- H. Have State supervisor of safety speak to the teachers.
- I. Make analysis of accidents in your district as a basis of safety work.

II. Phases of safety education.

- A. Highway.
- B. Home.
- C. School.
- D. Play.
- E. Health.
- F. Industry.
- G. Celebration.
- H. Conservation.

III. Activities.

A. Construction.

- 1. Moving-picture machine showing preventive measures.
- 2. Theater board—safety program.
- 3. Sand table—replica of traffic conditions near school.
- 4. Building blocks—vehicles, scenes requiring caution.
- 5. Signals, signs, safety devices, safety maps.
- 6. Safety games.
- 7. Safety lantern slides.

B. Collections.

- 1. Pictures of safety devices.
- 2. Records of work done by pupils to prevent accidents.
- 3. Report of school accidents, causes, and how they might have been prevented.

C. Organization.

- 1. Safety information bureau.
- 2. Safety news bulletin.
- 3. First-aid club or class.

D. Talks.

- 1. First aid—by nurse, doctor.
- 2. Prevention—by nurse, doctor, dentist, optician, or oculist.
- 3. Safety—by policeman, fireman.

E. Outdoor activities.

- 1. Safety parade.
- 2. Excursions to railroad, traffic center, factory, dairy, firehouse.

IV. Curriculum.

A. English.

- 1. Debates, discussions.
- 2. Illustrated talks.

IV. Curriculum—Continued.

A. English—Continued.

3. Compositions, stories.
4. Poems, songs, rhymes.
5. Fables, legends.
6. Plays, pageants, scenarios, charades.
7. Creeds, slogans.

B. Arithmetic.

1. Graphs, charts, diagrams, tabulations.
2. Problems from statistics.
3. Traffic count.

C. Social studies.

1. Current events.
2. Excursions.
3. Safety in other lands.
4. History of transportation, aviation.
5. Safety in mining, lumbering, manufacturing, agriculture.
6. Conservation—human life, natural resources, time, labor.

D. Arts.

1. Pantomimes, tableaux, dramatizations.
2. Free expression.
 - (a) Modeling—hydrant, bus, truck, train, trolley.
 - (b) Impressions of excursions.
 - (c) Cartoons.
 - (d) Pictures.
3. Posters.
4. Puzzles.
5. Badges, insignia.
6. Instruction in safe use of tools.

E. Physical education including health.

1. Bodily control.
2. Good habits.

F. Reading.

What Constitutes a Good Program in Safety for a School System

A CHECK LIST FOR SUPERINTENDENTS*

The report of the committee on safety of the White House Conference on Child Health and Protection has out

* Submitted by Dr. Herbert Stack, chairman of the White House Committee on Safety Education.

lined what might be considered a desirable program in safety. This program consists of the following features:

1. Provision for school-boy patrols to protect children at dangerous intersections near school buildings.
2. Patrols for hall monitors to regulate traffic within the school buildings, on playgrounds, and other places inside the school.
3. Provision for teaching safety in school extracurricular activities such as assemblies, home-room programs, and club activities, i. e., junior safety councils, boy scouts, girl scouts, swimming, and first aid.
4. The safety program should be under the supervision of an administrative officer, the superintendent, and his assistant, or one of the special supervisors.
5. Cooperation should be given to police, fire, and health departments for the carrying out of special campaigns for community welfare.
6. The school plant should be safe. In many States there are special codes regarding building construction. It is essential that proper provision be made for the protection of children in school buildings.
7. It is advisable that schools use some kind of accident-reporting system so that they may get at the facts relative to child accidents.
8. Some provision should be made by school superintendents for the purchase of readers and other safety materials.
9. It is desirable for schools to have a course of study in safety education, either as a part of the civic or health courses or as a separate syllabus. Many cities and some States now have such courses. Others use courses and lesson plans prepared by safety organizations. Schools should have some kind of organized program.
10. The strength of a safety program lies in the instruction that is given in the classroom. Here safety may be correlated with various school subjects. It is essentially an activity program. While it is quite natural that it be stressed in the elementary grades, nevertheless, in the secondary schools in such subjects as general science, civics, chemistry, household arts, industrial arts, biology, and physics there is an excellent opportunity to stress safety.

How to put the safety program into operation is an important question which Miss Stevenson, of the National Safety Council, attempts to answer in the Yearbook of the National Society for the Study of Education on Safety Education,²⁸ by outlining six types of administration.

²⁸ Stevenson, Idabelle. Prevalent methods of administering safety education in the schools. General account of prevalent types of administration. The Twenty-fifth Yearbook of the National Society for the Study of Education, 1926.

TYPE I

Example: Detroit, Mich.—Large city school systems give little opportunity for direct supervision.

A special supervisor, or director of safety education is appointed in Detroit whose sole duty is to see that safety is taught in every school. The special supervisor's duties are—

1. To keep a record of all child accidents and fatalities.
2. To prepare and distribute materials for all teachers to correlate with the regular school work.
3. To initiate and direct junior traffic patrols and safety councils.

TYPE II

Example: Louisville, Ky.—Smaller city school systems give opportunity for closer supervision.

A combination of safety with some other subject, such as health or physical education, is made here because the system is not large enough to justify a full-time supervisor. The director of health or physical education becomes also the director of safety.

The director's duties are—

1. To issue regular instruction to the teachers for each month suggesting the subjects to be taught.
2. To visit the schools to see if instruction is being followed.
3. To furnish new materials for the purpose of correlation.
4. To require junior club activities in every school.

TYPE III

Example: Springfield, Mass.—The general supervisors—elementary, intermediate, or junior high-school grades—work with the special supervisors and virtually direct the work. Their duties are:

1. To encourage individual principals in organizing club activities and traffic patrols for their own school.
2. To use safety as content material for practically every subject taught in the schools.

TYPE IV

Example: Kansas City, Mo.—A school committee of the safety council made up of representative people from public and parochial schools act as a recommendatory body to the schools. Their duties are:

1. To submit plans to the superintendent of schools.
2. To furnish material and persons to help organize the work in the schools.

NOTE: Perhaps the most perfect junior council organizations are developed under these conditions, as the junior school clubs form the nucleus of the future local safety councils.

TYPE V

Example: Pawtucket, R. I.—A committee consisting of one teacher from each school, together with the supervisors, is appointed by the superintendent and known as the teachers safety committee. Their duties are:

1. To plan for future work.
2. To prepare bulletins to be distributed by the central school office.
3. To outline special projects for ways and means of keeping safety a vital part of the school program.

TYPE VI

Example: Lynn, Mass.—A laboratory school is maintained as an effective method of teaching safety.

1. A school is selected as the demonstration center.
2. Teachers test out methods using materials on local safety data together with all available publications on safety.
3. Teachers from other schools visit the demonstration school and apply methods to their own classes.

These six types will indicate the plans which have been found to be useful in organizing safety education in the public schools

V. Bibliography on Safety Education

Material for Teachers

American Red Cross. Abridged test on first aid. Philadelphia, P. Blakiston's Sons & Co., 1928. 206 p. 60 cents.
Essentials of first-aid information.

Annual conflagration map. Big United States fires in 1930. New York, N. Y., National Fire Protective Association.

Beard, Harriet E. Safety first for school and home. New York, The Macmillan Co., 1924. \$1.28.

Information for the teacher on the causes of public and home accidents. Detroit course of study included.

Chicago Board of Education. Committee appointed by the superintendent of schools. Chicago, 1923. 160 p.

Presents the seasonal hazards for each month, together with suggestions as to methods of instruction. Stories, slogans, jingles, bibliography, and valuable information as to specific hazards and remedies are given.

Fisher, Boyd. Mental causes of accidents. New York, N. Y., Houghton Mifflin Co., 1922. \$2.50.

Harris, Hannah M. Lessons in civics for the six elementary grades of city schools. Washington, Government Printing Office, 1920. (Bureau of Education. Bulletin, 1920, No. 18.) 15 cents.

Henig, Max H. Safety education in the vocational school. The construction of a curriculum for accident prevention. New York, N. Y., National Bureau of Casualty and Surety Underwriters, 1931. \$1.40.

Based on extensive experiments covering a period of three years in the Essex County Vocational School.

Health education. Joint committee of the National Education Association and the American Medical Association. A comprehensive study of health education by experts in various fields with special reference to safety. Washington, D. C., National Education Association, 1930. \$1.25.

National Bureau of Casualty and Surety Underwriters, 1 Park Avenue, New York, N. Y., publishes the following:

National test in safety education, 25 for \$1; Present status of safety education, \$1.75; Safety education in the elementary schools, \$1; Safety education in the vocational school, \$1.40; Positive versus negative instruction, \$1.75; Safety education in secondary schools, \$1.75; A guide book for safety education, 1931.

National Safety Council. Education section, 1 Park Avenue, New York, N. Y. 6

General publications: The junior safety council, 25 cents; Safety education in the rural schools, 25 cents; Safety for more and better adventures, free; Safety education in the church school, 10 cents; The inner movement of the safety movement, free; Adventurous living, free; Safety teaching in the modern school, 25 cents.

— Safety education bulletin. New York, N. Y., National Safety Council. \$1.

This bulletin may be used by teachers in the lower grades, and may be read by pupils.

Payne, E. George, and Schroeder, Louis. Health and safety in the new curriculum. New York, American Viewpoint Society, 1925. \$2.

Safety Education. A magazine for teachers and pupils published monthly from September to June by the Education division of the National Safety Council, 1 Park Avenue, New York, N. Y. Contains projects, plans, stories, and articles for each school level and an illustrated supplement in color. \$1 a year. ✓

Safeguarding the home against fire. A fire prevention manual for the school children of America. The National Board of Fire Underwriters, 85 John Street, New York, N. Y.

Safeguarding the Nation against fire. New York, N. Y., 1 Park Avenue, National Bureau of Casualty and Surety Underwriters.

Safety for the household. Washington, D. C., Government Printing Office (Bureau of Standards). 15 cents.

A pamphlet giving an excellent discussion of home accidents and their prevention.

Safety fundamentals. New York, N. Y., The Safety Institute of America, 1920. \$4.50.

Safeguarding America against fire. A monthly magazine devoted to fire prevention. Published by the National Board of Fire Underwriters, 85 John Street, New York, N. Y.

Sanders, Edward. Safety and health in organized camps. New York, N. Y., National Bureau of Casualty and Surety Underwriters. 1931.

Stack, Herbert J. Safety education in the secondary schools. National Bureau of Casualty and Surety Underwriters, 1 Park Avenue, New York, N. Y. 1931. \$1.75.

Streitz, Ruth. Safety education in the elementary school. National Safety Council, 1 Park Avenue, New York, N. Y. 1928. \$1.10.

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Bibliography. In Twenty-fifth yearbook of the National society for the study of education. Part I. The present status of education. Bloomington, Ill., Public School Publishing Co., 1920. \$1.75.

POSTERS

American Automobile Association. Monthly poster and lesson outline. Washington, D. C., The association.

National Child Welfare Society (Inc.), New York, N. Y., Educational building, 70 Fifth Avenue. Publishes a great variety of posters and is glad to serve the schools.

— Posters: Story pictures for classroom use, 50 cents; The simple family, \$1; Crayon poster lessons, 3 cents; monthly poster and outline service, 50 cents.

Elementary, secondary.